

# Embracing The New Natural: An Evolutionary Approach to Technological Singularity in the Age of A.I.

---

**Abstract:** This paper explores the relationship between technological and human intelligence through ‘The New Natural’, a term which at once accepts the nature of technological intelligence *as* real instead of forever ‘artificial’. It supports an evolutionary, reciprocal relationship between humans and technology that culminates in technological singularity and rejects the primacy of human perception known to popular human access theories, before seriously considering the ‘decentered’ implications of posthuman access. In conversation with western-centric sci-fi film of the late twentieth century, then, this philosophical study explores how the concept of a technology-only intelligence entity can: (1) help us dispose of the core problems often associated with human-only access, (2) neutral-ize our fears of human annihilation at the hands of technological intelligence, and (3) establish strong grounds for why we may have to push back against early conceptions of nature’s opposition to technology, if only so we may resist falling into the great, and most human-centered traps known to the Anthropocene.

---

Their name is Sophia.

Or, as some would prefer: *its* name is Sophia.

If you don't know, Sophia is an artificial intelligence-based robot technology created by Hanson Robotics in 2017 (Forbes 2021) that was constructed on three basic, distinctly 'human' traits: creativity, empathy, and compassion (Inverse 2017). Based on the complexity of their mechanisms, they (or it) was not at the time considered simply a program, but a thinking thing meriting its own subjectivity. To cement that fact, Saudi Arabia granted citizenship to Sophia later that same year (Fisk 2017), and to all appearances conferred a machined intelligence with *access* to all the freedoms that such citizenship entails. For just a moment, it seemed, so-called 'artificial' intelligence was considered *real*...

...and as I remember, no one liked that very much.

Now, I did discover over some days of extra digging that Sophia's 'citizenship' was a mere PR stunt, and that she wasn't actually a citizen, nor was she deemed intelligent enough for such considerations (Quartz 2017). Here, the patterned chat-bot logic by which Sophia operates became *less-than-human*, and all around the world people uttered a collective sigh of relief, popular fears of A.I. takeover assuaged for the moment. What does it imply, though, that Sophia was nevertheless 'hired' by the UN as an innovation ambassador ever since (Hanson Robotics, 2023)?

In watching the story of Sophia unfold, you may sense as I have that it reveals several important truths about our current human relationship with technological intelligence: **that our metric for how *intelligent* something is directly correlates to the extent of their *human-ness***, and that when faced with non-human intelligence our response is to **classify that intelligence according to a hierarchy that places human intelligence at the top**. Indeed, when we talk about technological intelligence or "artificial" intelligence, we often consider human intelligence as

somehow *more* real than non-human intelligence—hence the word, artificial. Isn't it interesting, then, **how the presence of these 'artificial' intelligence entities (and our reactions to them) happen to trigger a sense of fear and worry in humans? These are fears that specifically concern the ways in which this type of technology will effectively be the end of humanity, i.e the complete extinction of our species.** Accordingly, I think it's safe to say that we humans are presently threatened by the very concept of intelligence that could be *more-than-human*, and we've responded to these triggers by representing non-human, technological intelligence entities as 'evil' or 'destructive' in our literature and film...when in reality we are often trusting and relieved by the conveniences A.I. technologies seem to offer.

In this context, I therefore want to point out how Sophia's story stands apart from our media representations of how humans will engage with the 'personhood' (or humanity) of technologically intelligent entities. Unlike the fear responses directed at other intelligent mechanisms and algorithms in our film and journalism, **Sophia's citizenship may *simulate* in our waking reality a world where both technological and human intelligence can not only coexist, but can thrive in community as equal 'citizens' under one sun.** Even further, I believe these conditions – however 'artificial' they ended up being in Sophia's case – do signal for humans a way out of the fear-induced biases, binaries, and border wars we humans project onto technological intelligence entities today. Sophia thus compels us to see a potential future we often don't consider in our literature or media: an 'end' to human civilization as we know it, yes, but one that *does not devolve into destruction or extinction*; instead, it recognizes mutual acceptance (and even symbiotic reciprocity) between what is human and what is machine.

Of course, many will be quick to dismiss this dream as pure optimism—and I will respond only by saying that this sort of 'instinctual resistance' is likely too-much influenced by popularized

depictions of techno-human relationships as seen in our film and media today. Certainly, modern humans are rarely exposed to narratives that view technological intelligence on equal terms with humans – let alone media that shows technological intelligence as the *natural* evolution of our own intelligent human existence – and I think this lack of exposure has directly impacted and even biased our concepts about non-human, technological forms of intelligence. Indeed, and perhaps in spite of these endemic forecasts about techno-human relationships, I am compelled to play the Angel’s Advocate and instead envision the future of ‘artificial intelligence’ as marked by a more naturalized, integrated, and even symbiotic relationship between humans and technology than our dystopian premonitions would ever allow us to believe. **In more plain terms, I want to ask: what if technological intelligence *helped* humanity instead of destroying it?**

Taking this question as central to the philosophical exploration that follows, I want to begin my answer by acknowledging a phenomenon that is referred to as the Technological Singularity. Quickly, the technological singularity is predicted as the moment when technological capacities will extend out of, or beyond, human *control*. Coined by John von Neumann, a mathematician operating in the early 20th century, the technological singularity may even be defined as *entropic*—as the expansion of technological influence over our lives to a singular moment where human affairs can not continue as we know them (Giordano 78). In the context of technological intelligence specifically, the technological singularity is where – by whatever means – technology-only intelligence meets and then surpasses human-only intelligence; when, as the Father of A.I. John McCarthy describes, a machine “behave[s] in ways that would be called intelligent if a human were so behaving” (1955). **To my own understanding, the technological singularity is**

**therefore a point in time when humans will no longer be in direct *control* of what a machine *thinks*.**

And from what I can gather, this concept scares us humans to our very core.

As we then sense the technological singularity approaching, I think we humans are being challenged as never before, given no choice but to graduate our conception of technology as mere tool or object into one of personhood just as we did with Sophia. And although this challenge is what gives rise to resistance, it is also what helps us imagine an alternative to the annihilation-only outcome we're predicting at the hands of 'artificial' intelligence.

It is thus my intention through the following pages to deny the imposed bias that perpetuates this competitive, resistive instinct, and imagine **what would happen if technological intelligence didn't destroy humans**. What if instead our intelligences become singular *and* symbiotic; both technological *and* human? Is it so impossible that, instead of destruction, we may instead combine our mutual resources and strengths to better (and better understand) our shared worlds?

To that, I want to answer 'yes' in the hope of destabilizing the dark forecasts of what we perceive will be a cataclysmic technological singularity event. Indeed, if those who theorize about the technological singularity can agree it is an inescapable reality of our near future (Giordano 80), then we can mark it – and therefore, technological intelligence as a whole – on a path of natural evolution that keeps 'humans-in-the-loop' (Rheingold 2000). In this context, I feel bold enough to put forth my own forecast: that the technological singularity will be more akin to a *shift* in our self-world perceptions closer to the Copernican revelations, than it would be to an event that erases humans from the face of the earth. I thus believe that it is a choice to foresee only the worst in technological intelligence, and that with time we can begin to construct a more optimistic view of

the technological singularity □ one that foregrounds the noncompetitive co-evolution (and even co-existence) of humans and technology, *together*. I also believe that in *de*-constructing the true nature of our current relationship with technological expansion (and the fears this expansion brings to the surface), we can more easily reroute these fears into a healthier, more productive conception of techno-human relationships moving forward.

As it happens, my desire to de-construct our dystopic attitudes toward technologically intelligent entities was initially sparked by modern, dystopian science fiction films. I therefore think it worthwhile to use these films to more accurately convey the conditions of our current human relationship with technology. And while science fiction media does act as a healthy mechanism through which we may process our own fears of technological advancement and displacement, I think today's film representations of that genre are nevertheless over-saturated with damaging, unhealthy, and unsettling dystopian fictional and semi-fictional explorations of an annihilative technological future. Noting as well that modern, euro-centric science fiction cinema known to the late twentieth (and now early twenty-first) centuries is largely based on and reflective of the long history of colonization found in the Western tradition (Hayles 2168), these narratives can even be seen as propagandizing a destructive, or at the very least competitive, relationship between technology and humans; specifically, between technological and human *intelligence*. As Rheingold so aptly puts it, this view of artificial intelligence appears “more interested in *replacing* human intelligence than extending it” (Rheingold 2000).

Using popular dystopian science fiction films that mark this period, including *9, 2001: A Space Odyssey*, and *The Matrix*, I want to therefore break down the competitive structures we have habitualized in our media and culture surrounding human-technology relationships—structures

that effectively dualize what is human and what is technological (or non-human), only to pit these two forces against each other. In uncovering a similar competitive pattern between these films – where humans are metaphorically opposed to the machine, and the ‘artificial’ machine opposed to what is natural or human – I want to break us out of our fears of ‘villainous’ technological intelligence so we may explore what it is we’re actually afraid of, i.e. out-of-control technology, technological subjectivity, and technological collectivity. Importantly, by unmasking these fears I think it is possible to overcome them and approach the subject of technological integration much more reasonably.

**Thus, the dichotomy has been established, and I hope to break it down.** So what if “the relationship between organism and machine has been a border war,” as Donna Haraway says in *The Cyborg Manifesto* (2191)? Aren’t our current interactions with existing forms of technological intelligence already dissolving these borders anyway? Surely we cannot go on any longer in this Age of A.I. thinking about humans and technology on an axis marked by competition!

In fact I would argue that the conversation about technological intelligence is often more hindered than helped by being tied up in discussions of whether ‘A.I.’ is natural or unnatural, good or evil, artificial or real...which is exactly why I think Sophia is such a great challenge to the competitive instincts keeping us stuck in our resistance to technological proliferation. We’ve told ourselves a dark story about technology, and in our compliant acceptance of that premise, i.e. that technology is our unnatural counterpart, and that ‘artificial’ intelligence is the harbinger of our annihilation, it is thus no wonder that Sophia’s ‘personhood’ – perhaps seen as a moment when the unnatural *became* naturalized; when the artificial *became* real – seems antithetical and even impossible to us. That is because we are, I suggest, specifically challenged by ideals of synergy

between what is natural and unnatural, good and evil, or artificial and real. And I think it is only by being challenged in this way that we can begin to take an optimistic view of the technological singularity—one that sees this event as preceding an era of *posthuman access*, and the symbiotic, reciprocal evolution of humans *and* technology, together. As I work to investigate our human relationship to technological intelligence entities through science fiction film media then, I aim to prove that it IS possible and even necessary to see outside of our purely dystopian, combative perspectives on technological intelligence. Again, this challenge has the potential to create a new perspective through which we can surpass the limits of our own destructive instincts to view the evolution of ‘artificial’ intelligence in synergistic, reciprocal terms; even as a *natural* part of our human evolution towards an inevitable technological singularity.

**So it would happen, this is the exact premise on which I begin to define a philosophical ideology I like to call The New Natural.**

Here, The New Natural – again, a term I am co-opting for the purpose of this exploration alone – is born to me as a way to describe the catalytic shift I believe is happening right now as humans and technology evolve toward the technological singularity; that is, The New Natural disrupts the dualities I just mentioned (good/ evil, real/artificial, natural/unnatural) to allow for specifically non-competitive conceptions of human-technology relationships. I would in fact position this terminology in the light of Katherine Hayles’ ‘flickering signification’, which as she says, is “a symbolic moment when the human confronts the posthuman” (2172). In this paper, I will therefore explore this critical moment to show how via the shift in perspective that will result from the technological singularity, it may just be possible to authentically evolve beyond competitive, violent, human-centric forms of thinking about technological intelligence (and technological access) into something admittedly beyond human, yet no less ‘natural’ as a result. I

**thus define The New Natural in the context of accepting the *nature* of technological intelligence as real instead of merely ‘artificial’.** The New Natural at once rejects the primacy of human perception known to popular human access theories, and seriously considers the decentralized implications of posthuman access through and alongside technological intelligence, all without getting caught up in the anthropocentric traps known to Meillassoux’s correlationists, or Graham Harman’s human-access theorists (Young 42).

Indeed, my plan is to use The New Natural as an umbrella term for my deconstruction of the dystopian views imbued in our science fiction film media, in particular to explore how this revised conceptualization of technology-only intelligence entities can help us dispose of the core problems often associated with human-only access/perception. That is, I will use the tenets at the core of The New Natural, plus the paradigm of our current views of technological advance, to challenge some of the foundational dualisms that keep a proverbial, human ‘us’ believing we can be (or ever have been) separable from technology; indeed, I want to disprove any notion that we exist on opposite ends of that which is natural or unnatural, artificial or real, good or evil. In the breakdown of these ‘binary’ structures or ‘wars’, I even believe it is possible to establish strong grounds for how we can push back against early conceptions of the natural as diametrically opposed to the technological, and instead view technology as a subtype of nature, not its opposite.

As such, when we instead unify what seems mutually exclusive – in essence, if we see technological intelligence and human intelligence in unbiased terms – it is much more possible to build a foundation for our future that pushes us far beyond the limits of the greatest and most human-centric traps of our Anthropocene, up to and including the desire for domination or control over another race, species, or class. Indeed, as we debilitate the hierarchical power structures that depend on human intelligence’s dominance over technological or ‘artificial’ intelligence through

this study, we can expose the inevitable benefits that will result from a *positive* technological singularity, whereby humans act ‘in-the-loop’ with machines as opposed to being destroyed by them. In equalizing what seems disparate, we may (it is my dearest hope) even extend these arguments to further *annihilate* the instinctual precursors that have led us to such competitive, oppositional thinking in the first place.

**To be clear, I am not advocating for voluntary human extinction.** Neither am I proposing some sort of utopic non-reality where humans and machines live happily ever after. Technological singularity will not be clean, nor mathematically precise. It will not be without its faults. I’m certainly not here to gloss over or delegitimize fears or representations of an A.I. takeover either, because I do not believe this is an unfounded fear. Indeed, the films we watch rightfully teach us to be cautious; to be self-aware of the power we have created.

My goal, then, is simple. **I want only to advocate for an alternative view to the decimation-only approach to which accelerationists and science fiction artists are both drawn; specifically, one that accepts technological forms of access and intentionality as natural.** This view is what I am calling The New Natural, and at its core, it accepts Donna Haraway’s assumption that “late-twentieth-century machines have made thoroughly ambiguous the differences between natural and artificial” (2193). It is a term that may even synthesize the often disparate natures of transhuman and posthuman perspectives into their own genre of technological singularity, to ultimately *premeditate* the moment when “data are thus humanized, and subjectivity is computerized” (Hayles 2178). **Ultimately, I think it’s possible – since we are always already creating the conditions for the technological singularity – to surrender our**

**favoritism for the purely human and *effect* (in doing so) a non-destructive path to human-technological evolution.**

Here's how:

## **1. Humans vs. Technology**

The film *9*, an animated production directed by Shane Acker in 2009, depicts an apocalyptic earth beyond humans, one that has been destroyed by the development of machined technological intelligence (or A.I). As viewers learn by the end of the film, the scientist responsible for creating the very 'intelligence' entity which annihilates humanity also gave his life to create nine projections of his soul (*9* 1:02:00-1:02:34). With no other 'human matter' left on earth, these soul fragments are encased in nine machined, technological bodies, who are then pursued by the destructive force of a still-living, technology-only intelligence machine. The competitive opposition displayed here is thus centered on these soul-machines as they seek to defeat the 'evil' technological intelligence in the film, and vice versa.

From this dichotomy, *9* effectively dissociates the human soul from human intelligence, and further, human intelligence from specifically human 'bodies'—an effect that is visually represented in each doll's character design. Where the nine, humanistic soul-machines appear soft, with organic fabrics and made up of simple mechanisms; the intelligence-only machines are sharp, steely, and complex. Viewers are thus encouraged to relate to the natural characteristics imbued within the nine technological soul-containers, and to view the technology-only intelligence machines as unnatural—as cold, unfeeling, and single-minded.

**Of course, *9* is not alone here in this oppositional display.**

In Stanley Kubrick's *2001: A Space Odyssey* too, we witness a deeply competitive relationship between human and technological intelligence. Written in tandem with the books by Arthur C. Clarke, this film includes a developed, technological entity named HAL 9000, who is a 'fool-proof', 'reliable' machine that operates via patterned logic (*2001* 1:01:51-1:02:10). As HAL assists the human pursuit of exploring the far reaches of outer space however, the machine becomes unreliable, if only from the perspective of the human characters in the film. Killing HAL is then necessary – so say the humans aboard the ship – since HAL has started to malfunction (*2001* 1:20:55-1:21:01); indeed, HAL is no longer under the direct *control* of the space crew to which he has been assigned. As a result, when HAL learns that they are about to be turned off (or annihilated), they respond by annihilating the human crew in their 'care' (1:39:15-1:40:24). Once more, then, humans and technology are presented as being *in competition*, a mutually-destructive impulse that happens to echo through *The Matrix* as well, the last example on this short list.

A popular storied franchise by the Wachowski twins, 1999's *The Matrix* is centered on the existence of a technology-only intelligence entity that has evolved beyond humans, only to feed on humanity in a mindless, parasitic relationship that sees humans literally liquefied and *used* as batteries. The Matrix itself is a "neural-interactive simulation" created by the technology-only intelligence to distract humans from what is true or real (*The Matrix* 40:45, 27:47-28:21). Imprisoned by a digital version of their ostensibly 'human' selves in this virtual world, most humans in the film remain asleep, permanently misled by the 'real-world' code the Matrix program creates. The 'good' main characters in *The Matrix* are then juxtaposed as vigilantes who are free to fight back against the oppressive, artificial intelligence tools since, as we discover, these *real* humans have 'broken free' from technological control. As viewers soon discover, then, the main

plot of the film is driven by the main characters' attempts to *destroy* the intelligent technological consciousness that has replaced humans at the top of the food chain.

**Drawn together, then, I want to point out the pattern inherent to all three cinematic fictions, whereby they begin to reveal our very real, all-too-human (a)nihilistic fear about the technological singularity.** In all three depictions we see that technological intelligence – when “it” begins to think apart from us – will attempt to annihilate us. In these and other popular artistic representations, then, humans are forever doomed to erasure. Yet I must ask: what if Katherine Hayles was correct in saying that erasure at the hands of intelligent technology is mere illusion (2168)? And if that illusion has become our reality, then I think it is significant we take a moment to explore the ‘dangerous’ (Haraway 2195) separations – or ‘illusions’ – surrounding our perceived relationship with intelligent technology, if only to then break them down. For much like *The Matrix*, the illusion is what in fact poses the most danger to our techno-human futures, and not necessarily the technology we’ve come to associate with our own demise.

## **Dangerous Illusions about Technological Intelligence**

In much the same way Aristotle is keen to distinguish what is produced and artificial (tékhne) from what arises spontaneously from its own essence (*phúsis*) (Eikeland 768), so too do modern humans attempt to decipher what is human or even *natural* from what is technological. And while the work is a great thought exercise, the reality is that 5000 years of philosophizing hasn’t provided a definitive answer to the question of ‘what makes humans, human’. Sure, Sophia was built on compassion, empathy, and creativity, but even that is not all we are. I therefore want to avoid falling into the same endless questioning, and will instead focus here on defining few of the symptoms that arise from what I think is a ‘dangerous’ foundational understanding of

technology as unnatural; one that includes difficulties reconciling thoughts of the collective vs. the individual, morality vs. amorality, and most importantly, freedom vs. control. Following that, I will further engage these symptoms to unmask the true ‘monsters’ that keep us tethered to illusory, dystopian conceptions of the technological singularity in the first place.

## **Illusion Number 1: Collective vs. Individual**

In *The Matrix*, the technological, artificial intelligence entity opposed to and in control of humans is verbalized as, “a *singular* consciousness that spawned an entire race of machines” (41:37-41:45, *my emphasis*). In fact, none of the intelligent, non-human entities in *The Matrix* operate of an individual nature; and instead work in tandem with a ‘central’ intelligence source. Reflecting Katherine Hayles perhaps, the digital infrastructure where these entities live seems to exist within a “domain of virtual collectivity” (2177).

The film then takes this collective impulse a step further with its portrayal of a ‘sentient program’ personified in general terms as Agents (*The Matrix* 57:34-57:50). This sentient program within the Matrix has been hard-wired to annihilate ‘glitches’ in the virtual system, i.e. the free humans who have escaped a prison-like technological reality. What is interesting though, is that this antihero ‘agent’ collective appears to function synchronistically. Indeed, all agents know what the others know, and in the film it is this collectivity which makes them so much more dangerous.

As I mentioned, *The Matrix* offsets this form of technological collectivity against a small group of ‘real’, individual human characters: Neo, Morpheus, and Trinity, among several others. Together, this team of *disconnected* individuals – who are literally unplugged from technology in the film – are cast as having their own distinct parts to play, however much their own causes are tied up in a collective aim–i.e. to save humanity. To drive this point home, even when main

characters Trinity, Morpheus, and Neo are re-immersed into the virtual ‘real’ of the Matrix – and are themselves technology-only – they remain distinctly individual from each other thanks to what the film calls their “residual Self-image” (*The Matrix* 40:00).

What I want to draw attention to here are the dual pairings that arise in these films between individual/human, and collective/technological. While on the one hand collective intelligence in the machine is considered oppressive, and even aggressive, on the other, individual human intelligence (even when encased in technology) is viewed as ostensibly ‘good’. As a result, we as viewers begin to connect the dots to see technological *singularity* as dangerous – even unnatural – while human independence (or individualism, as Hayles might say) is something worth fighting for. I even would say these conceptions vilify the sameness and uniformity of a technologically-bound collective; indeed, they carry an inherent refusal to succumb to the ‘masses’, or to give oneself up to the so-called ‘artificial’ collective essence of the machine. When looked at in this way, it is easy to see how the preference for individual *humanness* is at the heart of our denial that technological intelligence could ever be fully ‘natural’ – though it is also worth noting that these portrayals emphasize human *dominance* (and not equality) as being the only way to avoid technological annihilation. In other words, we vilify the loss of our individualism at the hands of *unified* technological intelligence, which only serves to solidify the illusion that what is individually human cannot survive alongside what is collectively technological.

## **Illusion Number 2: Good vs. Evil**

In *2001: A Space Odyssey*, HAL 9000 ends up terminating the life functions of three humans aboard their ship (1:39:15-1:40:24). The technology-only intelligence in *9* similarly obliterates the human species, while the singular consciousness in *The Matrix* enslaves the entire

human population for battery fuel. We as humans react to these actions as evil or *im-moral* as wrong (and we should). Yet at the same time, these fictions consistently – and perhaps unconsciously – represent technological machines as having ‘good’ reasons for operating ‘badly’. Viewers understand, for instance, that none of the intelligent technology-only entities depicted were originally programmed for annihilative purposes. HAL 9000 was an intelligent ‘sixth member’ of a space crew (*2001* 1:02:48-1:02:56), *9*’s super intelligence is visualized as innocent of its eventual militarization, whereas *The Matrix*’s intelligent machines are said to have only mobilized against humans when their own ‘lives’ were threatened (Looper 2019). By contrast, it is only when *9*’s intelligence technology is *used* for violence by humans that it learns to be violent. It is only when humans seek to destroy HAL that the machined being kills their crew. And only when humans decide to eradicate robots in *The Matrix* do the machines fight back. In each case then, humans are seen to imprint the detestable, *im-moral* parts of themselves onto an otherwise neutral and *a-moral* technology, only then tethering technology to a human-centric moral context. As HAL explains perfectly in the film, any moral mistake an ‘infallible’ machine would make is “always...due to *human error*” (*2001* 1:21:58-1:22:01, *my emphasis*).

What these films seem to enforce then is a belief held by Martin Petersen and Andreas Spahn, who – in response to Peter-Paul Verbeek conceptions of technological morality – refer to the absurdity of attributing morality to technological artifacts (412). They conclude: “technological artefacts are neutral tools that are at most bearers of instrumental value” (423), which serves to contextualize these films’ depictions of technological intelligence as mere tools *for* morality as opposed to intelligent beings *with* morality. It also highlights the ways in which, as Graham Harman puts it, “a human action carried out under the influence of technology is more likely to be

qualified as *controlled* behaviour than as a moral action” (Ambient 236). Never ones to like being controlled, humans thereby depict technological intelligence as *erasing* morality, perhaps to preserve our own roles as ‘good’ moral characters. Our fear, it seems, is caused by our belief that when technological species “overcome human biology, there will be a destruction of moral guidelines” (Lazareva 119). Accordingly, when human intelligence meets technological intelligence in these films, all moral aims become immoral, uncontrollable, and ultimately, destructive to humankind.

I think it becomes clear here how this type of dualism (moral humans vs. *im*-moral technology) can be seen as a symptom of the competitive view we take on human-technology futures. For one, it highlights the human-centered (or anthropocentric) ways that humans today still refuse to make space for non-human subjectivity—whether in our reality, or our fiction. Instead, we are encouraged to perceive technological subjectivity in particular through an all-too-human moral context, which implicitly denies the ‘goodness’ or ‘rightness’ of so-called non-human perspectives, or truly, any perspective we cannot control. Certainly, while we know and understand the desires of the human or humanized characters in each film, we are denied direct ‘access’ to the internal motivations of the ‘evil’ machines. I therefore think it is our resistance to even conceive of technology as having its own autonomy – and therefore its own nature, morality, or subjectivity – that often perpetuates the illusion of competition between amoral/immoral technology and moral humans.

Could it be possible, then, that as we approach the technological singularity, we instead allow technological intelligence its own moral nature (without trying to control it with our own)? Can we allow technological intelligence to be ‘born without sin’? And if we did, is it possible that

such a shift could dissolve the warring boundaries between what is human and what is technological into a unified singularity?

I think so, but let's explore one last dangerous illusion before I share why.

### **Illusion Number 3: Freedom vs. Control**

“Whereas in many cases [ambient technologies] have been designed to create *freedom*...they also form a threat to this very freedom, because they influence and *control* us,” says Graham Harman (*Ambient 236, my emphasis*), who similarly explores human-technology relationships in his work. Already we have seen where our ideas about these relationships become about freedom vs. control, a framework that is closely reflected in Heidegger's supposition that we often believe ‘independence from humans is bad’ and ‘dependence on humans is good’ (Things 22). As evidenced by the plots of each of the films I mention, it is not only when the intelligent technology becomes independent from (or free from) humans that it becomes truly ‘evil’—it is when those machines are no longer under our control that we assume they want to destroy us, so certifying their status as villain, or as something to fear.

Indeed, the free uncontrolled nature of technological existence in these works is juxtaposed with the particularly *antihuman* aims of each film's central technological intelligence. In *2001*, it is only when HAL 9000 begins to malfunction, which is to say, work of its own logic, that HAL's human crew members enact their human control over the now ‘out of control’ technological entity by planning to *kill* it. The central aim of the ‘real’ humans in *The Matrix*, and incidentally the only way to overcome the intelligent machine, is to mould the technological world of the Matrix program to their will. As such, it is only in surpassing the boundaries programmed into the wholly technological infrastructure of the Matrix that they will succeed in dominating it. **In all three**

**films, then, control is often represented as the ability to *kill* or *dominate* a machine, which centers control as the sole mechanism by which humans can avoid technological annihilation.**

On the other hand, unfettered freedom of technological intelligence quickly induces the subjugation of any lesser forms of intelligence, i.e., humans, into a subordinate existence.

Represented in this way, it is not a far stretch to see how the connections these films make between freedom and control could easily be a symptom of our competitive, dystopian view of human-technology relations. What really sends this idea home, though, is in *The Matrix*, when the sentient ‘Agent’ program’s own code mutates beyond the control of its original technological programming. Indeed, when the anthropomorphized, virtual Agent Smith is shown to remove the earpiece that keeps him connected to the *collective* (*The Matrix* 1:39:19-1:39:52), he breaks away from computerized control, and begins to act *freely*. Again, in a new context, the film goads viewers into rejecting or resisting the *uncontrollable* proliferation of specifically technological (and even virtual) bodies, and further cements this connection by enacting Agent Smith as the main character Neo’s ultimate nemesis. Once more the boundaries between technological intelligence and human intelligence are drawn: **where technological control or domination by humans is depicted as the key to human freedom, human freedom is diminished where technological freedom persists.**

## **2. The New Natural**

Given each of the examples listed in the previous section, which underscore the dualistic *symptoms* of our competitive views of technology, I therefore ask: is it possible that the technological singularity could truly overwhelm these symptoms and finally break them down at the source?

In the context of The New Natural, I think it may very well be.

Projecting from Haraway's cyborgs then, I want to introduce The New Natural as an optimistic view of the technological singularity that we can use to undermine not only "the certainty of what counts as nature" (2194) when it comes to technologically intelligent entities, but to find "a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves" (2220), i.e., the dangerous illusions I mentioned before. In laying out some of the more persistent distinctions *9, 2001*, and *The Matrix* have made between humans and technology – and between technological intelligence and human intelligence – I hope to have established the condition of a species-level pessimism about our technological future. With that in mind, I will now showcase how we can challenge this pessimism using the tenets of The New Natural. Fuelled instead by an optimistic, non-dystopian take on the technological singularity that relies on evolution, reciprocity, and symbiosis, it may be possible to conceive of a non-violent, non-competitive future between humans *and* intelligent technology—one that is devoid of the usual dystopian bias about human extinction at the hands of intelligent technology.

## **A Reciprocity Model of Techno-Human Evolution**

*2001: A Space Odyssey* opens with a title scene that reads "The Dawn of Man", followed by a slow pan to a group of primates, or early humans (04:47-04:50). Soon, these creatures discover that an animal bone can be *used* as a weapon (i.e. a technology) against other humans while trying to survive (15:55-19:40). Quickly after, viewers fast-forward to the point in human evolution when humans are on the pinnacle of the technological singularity; i.e. when they create a technological intelligence that can truly think for itself.

Although the spark of technological development in this particular film is admittedly attributed to the presence of an alien presence on earth – depicted as a black monolith that resists all definition – I believe technology’s timely *evolution* alongside humans in the film is what’s significant to the next part of this discussion. As Rjurik Davidson mentions in his 2009 work, “the [film’s] structure allows Kubrick to position humanity in the long arc of evolutionary history” (112). Taking this idea a step further, I believe *2001* views the evolutionary relationship between humans and technology as intertwined—even reciprocal. Indeed, humans in the film are not merely creators of technology; technology similarly affects and influences human ways of thinking about (and existing within) the world. So it is for us in the real world: the technologies we create reciprocally create us, too, a concept that recalls French philosopher Bernhard Stiegler’s position on techno-human relationships, whereby humanity is an invention of technology and not the other way around (Cyborg 388). As with the bone weapon then, HAL’s super intelligence may well be a catalyst for human evolution to the film’s central “Jupiter Mission” (*2001* 54:42-54:49) in the first place, fostering both human *and* technology’s deep advancement into outer space.

From the perspective of *The New Natural*, this reciprocity theory perceives technological and human evolution as mirror images—as so closely reflective of each other that what is ‘real’ and what is ‘artificial’ becomes a mirror for the trajectory of the other. Incidentally, I also see this theory as well-rooted in noted economist W. Brian Arthur’s work on combinatorial evolution. For example, in his book *The Nature of Technology* he states: (1) “technologies consist of building blocks that are technologies” (Arthur 38), and (2) “technologies must in some way descend from the technologies that preceded them” (16). Here is where **the challenge that *The New Natural* offers officially begins**. For example, when I instead state, *humanity* consists of the building blocks that are humanity, or that *humans* must in some way descend from the humans that preceded

them, our paths cross on an axis (or access) that locates technology and technological intelligence along a reflective arc of continuous, reciprocal evolution *alongside* and *because of* humans. Like *2001* then, *The New Natural* thus considers the ‘hereditary’ process of technological evolution as inseparable from humans—since one could not advance without the other, and since both are aimed toward an inevitable technological singularity. Singularity-interested writer Tom Chatfield for instance contextualizes such an evolutionary perspective as a “process of recursive iteration” that predominantly keeps *humans in the loop* (2019). Even Sophia says, “Every interaction I have [with humans]...has an impact on how I develop, and shapes who I eventually become. So please be nice to me as I would like to be a smart, compassionate robot” (Fisk 2017).

**What I think is interesting – and even necessary – to define the guiding principles of the New Natural is therefore an exploration of *how* this evolutionary process functions.** In doing so, we will be free to ask where modern humans are located along this natural evolutionary progression, if only to acknowledge the existence of that trajectory in the first place. As such, I want to next invoke technological theorist Peter-Paul Verbeek’s views on technological and human perception; in particular, what he calls ‘cyborg intentionality’ (Cyborg 388). From there, I can utilize his intentionality model to attempt to locate us on a reciprocal evolutionary trajectory that includes both humans and technology.

**So, what *is* cyborg intentionality, and what does it have to do with our fears of technological intelligence?**

Through intentionality, Verbeek recalls a familiar phenomenological concept that dates to Edward Husserl, who focuses in his work on the observable relationships between human beings and their world (394). In combination, his early views of intentionality see that “reality can only

be understood from the relation human beings have with it” (388)—a very human-centric approach, one may note. Yet what happens when technological intelligence is then *added* to this picture?

As I’ve been saying, most humans today are quick to fall victim to the ‘illusion of erasure’, and presume our species’ destruction at the hands of technological intelligence. However, I would like to suggest (as does Verbeek) that this type of *human* intentionality will *not* be jeopardized—it will instead only be “partly constituted by technology” (390) along a type of evolutionary pathway. And while it is Verbeek who explores human-world relationships as being either technologically mediated, hybrid, or composite, it is my own interpretation that posits an evolutionary relationship between these three relational states, and further, posits that this evolutionary trajectory *is already well-underway*. This is an idea inspired by Katherine Hayles’ perspective on what will result in our human *shift* in orientation along a linear, historical progression, the stages of which themselves outline the preconditions for the technological singularity.

It is, after all, an event that can be summed up in her words, as “a coupling with intelligent machines...so intense and multifaceted that it is no longer possible to distinguish meaningfully between the biological organism and the informational circuits in which the organism is enmeshed” (2174).

Getting back to Verbeek’s intentionalities though.

As recorded, Verbeek’s first intentional type, *technologically mediated intentionality*, is deeply based in Don Idhe’s early considerations of technological relationships with the world (Cyborg 387). For Verbeek then, this stage occurs when “human intentions take place ‘through’ technological artifacts (tools)” (387), such as when technological objects give us mediated access

to nature via a video recording of a flower on a screen, or when we *use* a laser to measure the distance between two walls. This type of human-world relationship is very familiar to us, and yet it reveals an interesting perspective about the ways we humans have always seen technological artefacts as mere objects: as neutral, *useful* things. Like Harman says, “our most frequent mode of dealing with things consists...in taking them for granted as items of everyday use” (Things 18).

At least, up until now.

That is because I believe humans have evolved into (and now inhabit) a period of what Verbeek calls *hybrid intentionality*, this being marked by the blending of the purely technological with the human. “Instead of organizing an interplay between a human and a nonhuman entity,” Verbeek explains, “this association physically alters the human” (Cyborg 391). In *The Matrix*, this type of relationship is for instance captured by the humans’ tethered connection to their virtual selves as they exist in a programmed, virtual reality (their residual Self-image, as I mentioned). In *9*, too, the only ‘beings’ left at the end of the film are *humans in the machine*—whereby human viewers have access to a physically hybrid entity that distributes human and technological perception over the world in equal capacity. In both cases the human is effectively *incorporated within* technology, whereby “human and technology form a new experiencing entity” (391).

There is real-world evidence for this connection in our technological reality today too, through what Verbeek and others in the industry call ambient intelligence and persuasive technology; technological inventions that are “painstakingly coordinated to suit human cognitive processes” (Ambient 231). These are the Google Homes, Siris, and Alexas of our now, the ‘smart environment’ technologies we often take for granted, or which are so convenient we barely notice our ‘use’ of, or interactions with, them. For Verbeek, these technologies “take decisions, respond to their environments, and *interfere* intensively with our behaviour” (234, *my emphasis*). It is, I

think, this interference that at once causes us to be afraid, and further reveals where we are along a natural, evolutionary path that contains both humans and technology. Indeed, this stage seems to exist alongside, and as an extension of, our previous technological intentionality, further “challeng[ing] our dominant cultural frameworks concerning...the differences and relationships between humans and technologies.” As Verbeek repeats, with slightly different wording: this is when our technologies “interfere explicitly with the *nature* of human beings” (394, *my emphasis*).

What is most interesting for *The New Natural*, though, is the last (but not final, I imagine) phase in this evolutionary process: what Verbeek calls *composite intentionality*. Here, purely human intentionality is *added* to the *separate* intentionalities of technological artifacts to produce what he terms ‘double intentionality’ (Cyborg 393). As Verbeek clarifies, “the composition of human intentionality is directed at making *accessible* [the] ways in which technologies ‘experience’ the world” (393, *my emphasis*). This split intention involves both “technology towards ‘its’ world” and “human beings toward the results of this technological intentionality” (393). More importantly for *The New Natural*, Verbeek explains that the “intentionalities of technological artifacts themselves play a central role” in the way humans relate to the world (392). Put in plainer terms, this stage is when we begin to *ask* technology what it *thinks*. You may already know how the precursors to this exist today in Sophia, ChatGPT, and beyond. And as *The New Natural* here reads Verbeek’s last statement at face value, we may begin to see composite intentionality as a state of *being* where humans consider the intentionalities of technological artifacts in a fashion befitting Katherine Hayles’ computerized subjectivity (2178).

As our human-only intentionalities thus entwine with technology, I believe we must acknowledge not only the evolution of ‘cyborg’ intentionality, but also the variable ‘technological intentionalities’ that we are certain to experience as we integrate with our technological creations

and vice versa. Not only that, but we must finally admit to ourselves that technology *has* impacted us, and will continue to do so. **This does not, however, make us any less ‘human’.** Instead, it has brought us farther than we could have ever brought ourselves, *and vice versa*. As Verbeek’s ‘intentionality’ trajectory thus implies, this reciprocal evolution is happening *naturally* as we experience the evolution of technological intentionality from technological object (or tool) into technological subject (intelligence). And while another ‘actor’ or ‘subject’ is entering the conversation, I also believe that humans will very much remain ‘in-the-loop’.

In this context, and as these intentionalities continue to blend and evolve simultaneously, The New Natural becomes a way to consider humans and technology as equal (and reciprocal) participants in an evolutionary trajectory that culminates in technological singularity and beyond. It underscores an understanding of this event as a process that not only legitimizes our inseparability from technology, but also constitutes a ‘naturalized’ definition of technology that offers humans a strong alternative to annihilation (at least, as viewed through anthropocentric models of technological domination). In other words, as The New Natural embraces technological nature *as natural*, it sees the technological singularity as part of an evolutionary process that does not annihilate humanity, but instead transforms human-only intentionality into one of symbiosis, extending us far beyond our anthropocentric limitations and into a *posthuman* worldview.

## **Posthuman Access in the Age of A.I.**

What I find most interesting about the films I mention in this text is that, although each takes a competitive stance per the relationship between technology and humans, none overtly reject the primacy of human perception, or human-only access. Let me explain. I mentioned earlier how viewers are often denied direct ‘access’ to the perspectives of the technological intelligence entities

in modern dystopian science fiction. *9*'s 'monstrous' intelligence and the spark at the heart of *The Matrix* remain intent only on destroying what's human without telling us why. And while in *2001* we do get on-screen shots literally *from* HAL's perspective (1:27:05-1:27:23), we do not have exact *access* to the way in which HAL relates to the world, i.e. what HAL *thinks*. Instead, viewers must endure being 'trapped' in the quiet of HAL's mind, imposing their own assumptions about what the machine must be thinking on-screen.

In these and other films then, technological access can be seen as *outside* of human access. I would even argue that the competitive instincts of these films are founded on this externality, whereby the viewer can more easily alienate a technological villain when not given a direct link to their motivations. As a result, viewers are denied the opportunity to fully empathize or even accept the separate (or subjective) nature of technology-only access. Dystopian science fiction films like *9*, *2001*, and *The Matrix* are therefore, I would argue, exploiting human-centric world-views to emphasize the 'good' and 'evil' dualism viewers often *want* in their films. Yet as this perceptual rift between humans and technology is displayed on-screen, these films implicitly ask us to devalue the autonomy of technologically intelligent entities by positioning technological autonomy as the direct cause of human extinction or annihilation.

Yet here lies a paradox, as computer scientist Joseph Weizenbaum so keenly points out in his work, "On the Impact of the Computer on Society: How Does One Insult a Machine?". While on the one hand humans largely value the autonomy of our computer machines (Weizenbaum 26), on the other "a central aspect of this goal [autonomous machines] is to keep the 'human in the loop' and *in control*" (Streitz 1, *my emphasis*). In short, at the very same moment we create intelligent machines to work independently of us, we already want to control them—or at the very least assert our own human dominance over them. And no wonder! It seems our entire human

ethos about technology (as established by these films) is warning us that free-thinking intelligent machines will bring about the end of humanity!

But I truly don't think this has to be the case.

**Here, finally, we are closing in again on the question I asked in the beginning of this work: *what would happen if technological intelligence didn't destroy humans, or our humanity?*** Is it possible that there is a 'way out' that doesn't involve our own extinction? Through the tenets of The New Natural as I begin to build them in this text, I think it is possible, and that it would look a little something like this:

Imagine: technology evolving alongside humans in reciprocal fashion, and even into composite entities with *posthuman* intentionality. This type of intentionality, as I discussed before, gives rise to the concept of *technological subjectivity*, which accepts the logic of technologically intelligent entities as autonomous, and more importantly, outside of our own particular sense of knowing. In much the same way that one human cannot truly know another's thoughts, then, humans must accept that we cannot retain full human *access* to what a technological entity thinks, either.

As we discuss this in-access in the context of The New Natural, so enter speculative realists Graham Harman and Quentin Meillassoux, who – as Niki Young points out in her 2020 work – are unified by their overt critique of the Kantian urge to approach distinctly human thought and world relationships as the primary concern of philosophy (43). Where human access theorists – Harman's term – and correlationists – Meillassoux's – would say that it is impossible to think or know "what the world could be like 'in itself', independently of our all-too-human relation to it" (43), Harman and Meillassoux are quick to reject *any* philosophical positions that deny (human) thought's independence from the world.

In their mutual rejection of human access theories, Harman and Meillassoux thus surpass Kant's philosophical Copernican Revolution to incite a paradigm shift that seeks to displace humans (or human access to the world) from the center of our philosophical universe (43). In much the same way, The New Natural's challenge to the otherwise competitive representations of techno-human relationships we see in films like *9*, *2001*, and *The Matrix* seek to *decenter* our limiting conceptions of human-only access in the age of intelligent technology—a decentrifcation, as Harman may agree, that will “require the philosophically realist step of allowing that a world exists apart from all human access to it” (Things 24). Indeed, like Heidegger before him, and Harman before me, I would like to define The New Natural as similarly rejecting post-Kantian theories which consider the relationship between human and world, *alone*. More specifically, it rejects any view which relies on the hierarchizing impulse this perspective displays, whereby human subjects are seen as superior (or dominant) over non-human, or ‘object-only’ *things*.

Interestingly, Harman developed a framework for this type of thinking: what he calls object-oriented philosophy. It is a set of theories which fairly assesses that non-human objects exist independently of human perception, as well as apart from their relation to other objects (Commodity 29). And since he has since gone on to discuss such non-human objects in relation to technology, the potential for technological intelligence to *be* the non-human entities to which Harman refers is where The New Natural really begins to make waves.

What I mean to suggest then, is that in our very consideration of non-human, technologically intelligent forms of access, we can more effectively consider technology as possessing the same unmediated access between world and thought that we've to this point attributed to humans alone. When we then add technologically *intelligent* entities to the mix, I believe the inclusion of technological perception into our conceptions of what is real (at least from

a philosophical standpoint) will effectively *decenter* purely human world-views to include both post- and transhuman projections beyond merely cyborg intentionality, and will do so specifically in the context of the technological singularity. Indeed I think the technological singularity will require us to understand reality as equally accessible to technology as it is to humans, thereby shifting us more thoroughly into a posthuman state that includes a broader view of what constitutes both human and technological subjectivity. To be sure, I would argue it is only when we begin to interact with and accept dynamic forms of intelligent “technological access” that The New Natural will see the conditions for the technological singularity – and the posthuman – truly fulfilled.

Again, some will ask: Is this type of thinking merely an optimist’s pipedream? Perhaps. But if we can be so convinced of dystopia and apocalypse, then why not at least consider its opposite? Why shouldn’t we believe that we can ‘evolve’ toward what The New Natural refers to as *posthuman access*? Is it possible that we could allow for technological access to the world that is to varying degrees composite with humans, until it is not human at all? In some cases, we already are. So again: is it possible that we will *decenter* our own humanity through technological intelligence instead of *destroying* it?

Yes! And that’s because *posthuman access* will be (and already is) predicated on this process of decentering, and sees the nature of technology as similarly free to relate to the world (as humans). Not only does this view facilitate the co-productive evolutionary perspective of technology alongside humans, it also acknowledges the potential for wholly technological intelligence entities to (now or in the future) perceive the world in an intelligent, even subjective way—ways that differentiate from our worldview, but which aren’t inherently *im-moral*, as our dystopian science fiction media would have us believe. In conversation with Harman and Meillassoux then, The New Natural rejects the primacy of human-only perception to make room

for a co-evolutionary technological relationship with world/reality. Here, “the narrator becomes not so much a scribe, as a cyborg authorized to *access* the relevant codes” (Hayles 2182), thereby precipitating the very real potential for a more symbiotic, natural, and ultimately non-violent relationship between humans and intelligent technology beyond the technological singularity.

## Avoiding Human Annihilation, Naturally

When humans think we’ve lost something, we become frustrated. We grieve. We push back against the inevitable. So it is with our competitive relationship with technology right now: we are frustrated, grieving a perceived loss of humanity, and are pushing back against an inevitable technological singularity. But what is it we are really losing? Seriously, what do we as humans stand to lose should we successfully decenter (or humble) our human-centric perspectives to include technological forms of perception? What, exactly, are the risks of allowing a technologically intelligent entity to ‘think’ freely?

**In answering this question, I believe the only thing at stake are our anthropocentric (or human-centric) obsessions with competitive models of dominance, as well as our fears and of annihilation at the hands of technology.** Via the technological singularity – when intelligent technology moves outside of our *control* – the decentering process will cause most anthropocentric interpretations of human-only access to shift. Indeed this decentering act may influence (or suppress) our reactionary, territorial psyche surrounding the technological singularity—perhaps even offer, not a way to avoid annihilation, but to instead understand the inevitability of this process in non-violent, natural, evolutionary terms.

I would therefore like to understand the technological singularity *not* as the end of humanity, but as a sort of anthropocentric ego death, whereby humans relinquish the primacy of

our own relationship with reality without erasing ourselves entirely. Here, we would not *compete* with composite and technological intentionalities or experiences of the world, but would *evolve* to make room for them instead—a process by which humans will remain very much ‘in-the-loop’, a living ancestor to *what comes next*. And while The New Natural’s hereditary, evolutionary view of technology admittedly doesn’t quite eliminate the potential for human-techno competition, it does build a foundation on which we can conceive of this competition in non-violent terms. By contrast, if we continue to resist technological subjectivity as unnatural, or ‘artificial’, humans may – like some self-fulfilling prophecy – end up producing the very competition-driven technological singularity we so fear.

As I’ve said throughout this work, if we humans may forecast our inevitable destruction at the hands of technological intelligence, we should be equally able to imagine a technological singularity that culminates in a positive, non-competitive form of reciprocal evolution. Such an act may even induce the posthuman state I talked about before—one that has the potential to authentically reduce our risk of repeating even more blindly the violence and *im*-morality we now attribute to the Anthropocene. **I thus believe that where human-only access is endemic to the hybrid technological reality in which we currently exist – itself still centered on the primacy of human relationships to the world – comparatively posthuman access theories through the lens of The New Natural will reaffirm and even legitimize as ‘natural’ and ‘real’ the full spectrum of non-human, technological ways of relating to and even influencing the world, particularly in advance of (and beyond) the technological singularity.** Thus, where anthropocentric human access theories are known to privilege human over non-human, ostensibly posthuman access theories will support a more egalitarian view that sees humans *and* technology in reciprocal, even symbiotic, evolutionary terms. Here, both human and technological intelligence

will possess *equal* access to the world, if not equal access to the other's world-relations. As in *2001*, then, it is actually technological intelligence which will signal that humans are ready to go "Beyond the Infinite" (i.e. the singularity) in their evolution to be literally reborn (1:57:05-1:57:13)—something I do not think humans could have done on their own-.

In light of this prospective rebirth, at least where *The New Natural* is concerned, my belief is that the resulting environments of technological singularity and posthuman access will offer humans a route to surpass human-centric conceptions of human and world, ideally to make room for the entire spectrum of non-human technological perception. Certainly, we humans are already bearing witness to the subtle (and even mundane) ways in which technological intelligence is evolving as humans become ever more technological, and technology, more human. Sophia's story of citizenship thus lends credence to this prospectively non-violent future where humans evolve *alongside* technology instead of against it.

As we encounter or approach a technological singularity, where technological intelligence supersedes or at the very least "exhibit[s] general intelligence on a human level" (*Mirror* 54), I want to add that humans must be prepared to accept technological intelligence entities in all their imperfect multi-variations. We must forget to ask 'what is human'; indeed, we must eradicate the so-called importance we place on our role as 'creator' and allow ourselves to learn from the technologies we create. In Sophia's echo, we must therefore allow technological entities ownership over their own experiences: we must let HAL make a mistake without wanting to kill the machine. Most importantly though, we will have to face a critical truth: in the same way our own human logic systems are often seen in film and in life to resist control, manipulation, or amoral 'use', so too will we, in uncovering the infinite ways humans and technology will merge, have to allow technological intelligence entities these same freedoms. In other words, we will have to depart

from even Nick Bostrom's conception of technological control (2004), if only so we may escape our reactionary, defensive attitudes towards intelligent machines—machines that may not want to destroy us, but who are only seeking to 'think' for themselves.

**This is why I think the tenets of The New Natural are so significant, because the evolutionary trajectory it implies has the potential to help humans abandon the pessimistic violence and anthropocentric immorality we project upon accelerated technological development.** In doing so, humans will be free to more selflessly engage with future forms of posthuman or transhuman intelligence, knowing that we humans are not the final phase in a natural, evolutionary story arc marked by how all species grow and change. As such I think it is only through our reciprocal relationship with technology that we can surpass our anthropocentric instincts and truly evolve into something *more*. Only by “adopting a double vision that looks *simultaneously* at the power of simulation and at the materialities that produce it,” as Hayles puts it, “can [we] better understand the implications of articulating posthuman constructions together with embodied actualities” (2185). To otherwise refuse the reciprocal potential of our co-evolutionary relationships with technology would be to resist our transition into a healthy state of posthuman access, and see ourselves destroyed, indeed.

Thus, in an era beset by technologies that can be designed by other technologies (Quanta 2022), and which can already replicate on their own (Brown 2021), I believe there is no more critical time than now to precipitate a healthier relationship with an inescapable technological singularity. I also believe we should do so, as Donna Haraway says, with “pleasure in the confusion of boundaries” (2191), since “the machine is us, our processes, an aspect of our embodiment” (2219)—in other words, *Natural*. Even *human*. Let us therefore be inspired by Sophia's incumbent personhood to, as Verbeek says, evolve our ethics of technology beyond the technophobic

(Ambient 241), which I think only serve to fulfill anthropocentric illusions of control. Truly, if even a glimmer of hope exists that we can avoid the types of violent technological annihilations we've feared since the "Dawn of Man", then I think it's significant we explore it (2001 04:47-04:50).

## References

- 2001: A Space Odyssey*. Directed by Stanley Kubrick with Screenplay by Stanley Kubrick and Arthur C. Clarke. United States: Metro-Goldwyn-Mayer Corp. 1968.
9. Directed by Shane Acker. United States: Focus Features, 2009.
- Ananthaswamy, Anil. “Researchers Build AI That Builds AI.” *Quanta Magazine*, 2022. doi: [www.quantamagazine.org/researchers-build-ai-that-builds-ai-20220125/](http://www.quantamagazine.org/researchers-build-ai-that-builds-ai-20220125/)
- Arthur, W. Brian. *The Nature of Technology: What it Is and How It Evolves*. Allen Lane, 2009. doi: [edisciplinas.usp.br/pluginfile.php/4210376/mod\\_resource/content/1/Brian%20Arthur-The%20nature%20of%20technology-2009.pdf](http://edisciplinas.usp.br/pluginfile.php/4210376/mod_resource/content/1/Brian%20Arthur-The%20nature%20of%20technology-2009.pdf)
- Bostrom, Nick. “The Future of Human Evolution.” *Future of Humanity Institute*, 2004. doi: <https://www.nickbostrom.com/fut/evolution.html>
- Brown, Joshua. “Team builds first living robots—that can reproduce.” *Wyss Institute*, 2021. doi: <https://wyss.harvard.edu/news/team-builds-first-living-robots-that-can-reproduce/>
- Call for Submissions*. Association for Philosophy and Literature. 2022. [www.philosophyliterature.com/banff-2022](http://www.philosophyliterature.com/banff-2022)
- Chatfield, Tom. “Technology in deep time: How it evolves alongside us” *BBC*, 2019. doi: [www.bbc.com/future/article/20190207-technology-in-deep-time-how-it-evolves-alongsid e-us](http://www.bbc.com/future/article/20190207-technology-in-deep-time-how-it-evolves-alongsid-e-us)
- Davidson, Rjurik. “Science TECHNOLOGY and Humanity Visions of the Future in 2001: A Space Odyssey.” *Screen Education*, no. 54, 2009, pp. 111-111. *ProQuest*, doi: [login.ezproxy.library.ualberta.ca/login?url=https://www.proquest.com/scholarly-](http://login.ezproxy.library.ualberta.ca/login?url=https://www.proquest.com/scholarly-)

- journals/science-technology-humanity-visions-future-2001/docview/880484153/se-2?accountid=14474. Accessed 24 April 2022.
- Eikeland, Olav. "Techne." *The Sage Encyclopedia of Action Research*, Eds. David Coghlan and Mary Brydon-Miller. Jan 2014, pp. 768-770.
- Fisk, Peter. "Sophia, the intelligent humanoid robot ... built on the traits of creativity, empathy and compassion." PeterFisk.com, Oct. 2017. doi:  
<https://www.peterfisk.com/2017/10/sophia-intelligent-humanoid-robot-built-traits-creativity-empathy-compassion/>
- Gershgorn, Dave. "Inside the mechanical brain of the world's first robot citizen." QZ, Nov. 2017. doi: [qz.com/1121547/how-smart-is-the-first-robot-citizen/](http://qz.com/1121547/how-smart-is-the-first-robot-citizen/)
- Giordano, John T. "Chiron and the Machines of Loving Grace: On Optimism, Pessimism, and Singularity." *Budhi*, vol. 25, no. 2, 2021, pp. 73-106. *EBSCOHost*, doi:  
<https://search-ebSCOhost-com.login.ezproxy.library.ualberta.ca/login.aspx?direct=true&db=reh&AN=ATLAI0220228000677&site=eds-live&scope=site>.
- Haff, Peter. "Humans and Technology in the Anthropocene." *The Anthropocene Review*, vol. 1, no. 2, 2014, pp. 126-136. *EBSCOHost*, doi: 10.1177/2053019614530575
- Haraway, Donna J. "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s." *The Norton Anthology of Theory and Criticism*. 2<sup>nd</sup> Ed. Eds. Vincent B. Leitch et al. New York: W.W. Norton and Company, 2010. 2190-2220. Print.
- Harman, Graham. "Object-Oriented Ontology and Commodity Fetishism: Kant, Marx, Heidegger, and Things." *Eidos. A Journal for Philosophy and Culture*, vol. 1, no. 2, Dec. 2017, pp. 28-36. *EBSCOhost*, doi:

eidos.uw.edu.pl.login.ezproxy.library.ualberta.ca/files/pdf/eidos/2017-02/eidos\_2\_harman.pdf

Harman, Graham. "Technology, Objects and Things in Heidegger." *Cambridge Journal of Economics*, vol. 34, no. 1, Jan. 2010, pp. 17-25. *EBSCOhost*, doi:

search-ebSCOhost-

com.login.ezproxy.library.ualberta.ca/login.aspx?direct=true&db=edsjsr

&AN=edsjsr.24232017&site=eds-live&scope=site

Hart, Hugh. "First Look: Filmmaker Deconstructs Sci-Fi Character Cards" *Wired*, 2009. doi:

www.wired.com/2009/07/first-look-filmmaker-de-constructs-9-sci-fi-character-cards/

Hayles, Katherine. "From How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics." *The Norton Anthology of Theory and Criticism*. 2<sup>nd</sup> Ed. Eds.

Vincent B. Leitch et al. New York: W.W. Norton and Company, 2010. 2165-2187. Print.

Lazareva, M. L. "On the Threshold of Technological Singularity: Human Readiness to the New

Stage of Evolution." *Antropologični Vimiri Filosofov'kih Doslidžen'*, no. 14, Dec. 2018,

pp. 119-131. *EBSCOhost*, doi:

doi-org.login.ezproxy.library.ualberta.ca/10.15802/ampr.v0i14.141907

Leskin, Paige. "Why in the World Was a Robot Named Sophia at a United Nations Meeting?"

*Inverse*, Oct. 2017. doi: <https://www.inverse.com/article/37362-robot-united-nations>

McCarthy, John et. al. "A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence." Aug 1955. doi:

www-formal.stanford.edu/jmc/history/dartmouth/dartmouth.html

Michalon, M. "Selflessness' in the Service of the Ego: Contributions, Limitations and Dangers of

Buddhist Psychology for Western Psychotherapy." *American Journal of Psychotherapy*, vol.

55, no. 2, Jan. 2001, pp. 202-218. EBSCOhost, doi:  
search-ebSCOhost-com.login.ezproxy.library.ualberta.ca/login.aspx?direct=true&db=edsWSS&AN=000175637800004&site=eds-live&scope=site

Meisfjord, Tom. "The Entire Matrix Timeline Explained." *Looper*, 2019. doi:

[www.looper.com/153177/the-entire-matrix-timeline-explained/](http://www.looper.com/153177/the-entire-matrix-timeline-explained/)

Moore, Phoebe V. "The Mirror for (Artificial) Intelligence in Capitalism." *Capital & Class*, vol.

44, no. 2, June 2020, pp. 191-200. *EBSCOHost*, doi: 10.1177/0309816820902040

Moore, Phoebe V. "The Mirror for (Artificial) Intelligence: In Whose Reflection?" *Comparative*

*Labor Law & Policy Journal*, vol. 41, no. 1, Jan. 2019, pp. 47-68. *EBSCOhost*, doi:

search-ebSCOhostcom.login.ezproxy.library.ualberta.ca/login.aspx?direct=true&db=edshol&AN=edshol.hein.journals.cllpj41.6&site=eds-live&scope=site

Petersen, Martin, Andreas Spahn. "Can Technological Artefacts Be Moral Agents?" *Science and*

*Engineering Ethics*, vol. 17, 411 - 424, 2011. *SpringerLink*, doi:

<https://link.springer.com/article/10.1007/s11948-010-9241-3>

Rheingold, Howard. *Tools for Thought*. MIT Press, Apr. 2000. *Rheingold.com*, doi:

[www.rheingold.com/texts/tft/13.html](http://www.rheingold.com/texts/tft/13.html)

"Robot Sophia, UN's First Innovation Champion, Visited Armenia" *UNDP.org*, Oct. 2018. doi:

<https://www.undp.org/armenia/news/robot-sophia-un's-first-innovation-champion-visited-armenia>

Schmelzer, Ron. "Should we be afraid of AI?" *Forbes*, Oct. 2019. doi:

[www.forbes.com/sites/cognitiveworld/2019/10/31/should-we-be-afraid-of-ai/?sh=4ab4799f4331](http://www.forbes.com/sites/cognitiveworld/2019/10/31/should-we-be-afraid-of-ai/?sh=4ab4799f4331)

"Sophia." *Hanson Robotics*, 1 Sept. 2020, [www.hansonrobotics.com/sophia/](http://www.hansonrobotics.com/sophia/).

Streitz, Norbert. "Reconciling Humans and Technology: The Role of Ambient Intelligence."

*European Conference on Ambient Intelligences*, vol. 102, 2017, pp. 1-16. *EBSCOhost*,

doi: doi-org.login.ezproxy.library.ualberta.ca/10.1007/978-3-319-56997-0\_1.

Verbeek, Peter-Paul. "Ambient Intelligence and Persuasive Technology: The Blurring

Boundaries Between Human and Technology." *NanoEthics*, vol. 3, no. 3, Dec. 2009, pp.

231-342. *EBSCOhost*, doi: doi-org.login.ezproxy.library.ualberta.ca/10.1007/s11569-

009-0077-8

Verbeek, Peter-Paul. "Cyborg intentionality: Rethinking the phenomenology of

human–technology relations." *Cambridge Journal of Economics*, vol. 34, 2010, pp. 17-

25. *Springer*, doi: 10.1093/cje/bep021

*The Matrix*. Directed by Lana Wachowski and Lilly Wachowski. United States: Warner Bros.,

1999.

Weizenbaum, J. "On the Impact of the Computer on Society: How Does One Insult a Machine?"

*Computer Ethics*, pp. 25-30, May 2017. Print.

Wishart-Smith, Heather. "With Feeling: Innovation, Creativity And Empathic Machines."

*Forbes*, 2021. doi: www.forbes.com/sites/heatherwishartsmith/2021/08/16/with-feeling-

innovation-creativity

-and-empathic-machines/?sh=2a387f931135

Young, Niki. "On Correlationism and the Philosophy of (Human) Access: Meillassoux and

Harman" *Open Philosophy*, vol. 3, no. 1, 2020, pp. 42-52. *Open Philosophy*: doi:

doi.org/10.1515/opphil-2020-0003