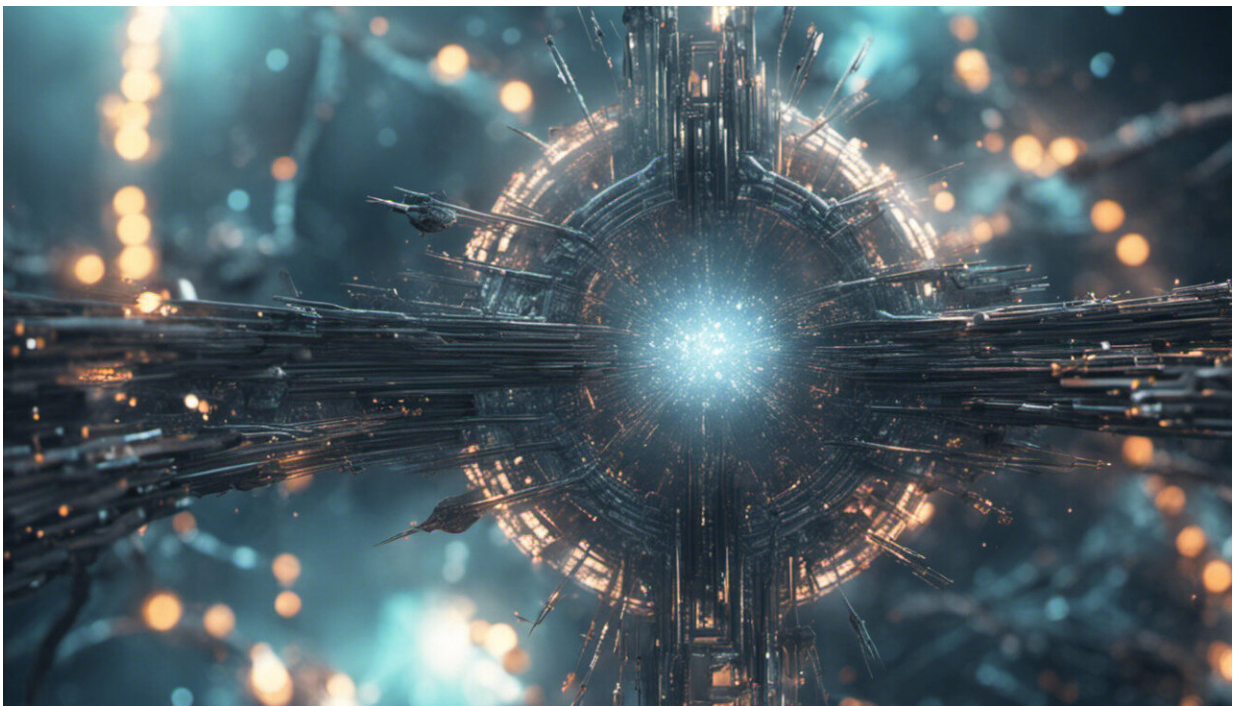


# Transhumanism—advances in technology could already put evolution into hyperdrive – but should they?

March 28 2018, by David Trippett

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Credit: AI-generated image ([disclaimer](#))

Biological evolution takes place over generations. But imagine if it could be expedited beyond the incremental change envisaged by Darwin to a matter of individual experience. Such things are dreamt of by so-called "transhumanists". Transhumanism has come to connote different things

to different people, from a belief system to a cultural movement, a field of study to a technological fantasy. You can't get a degree in transhumanism, but you can subscribe to it, invest in it, research its actors, and act on its tenets.

So what is it? The term "[transhumanism](#)" gained widespread currency in 1990, following its formal inauguration by Max More, the CEO of [Alcor Life Extension Foundation](#). It refers to an optimistic belief in the enhancement of the human condition through technology in all its forms. Its advocates believe in fundamentally enhancing the human condition through applied reason and a corporeal embrace of new technologies.

It is rooted in the belief that humans can and will be enhanced by the genetic engineering and information technology of today, as well as anticipated advances, such as bioengineering, artificial intelligence, and molecular nanotechnology. The result is an iteration of *Homo sapiens* enhanced or augmented, but still fundamentally human.

## Evolution in hyperdrive

The central premise of transhumanism, then, is that [biological evolution](#) will eventually be overtaken by advances in genetic, wearable and implantable technologies that artificially expedite the evolutionary process. This was the kernel of More's [founding definition](#) in 1990. Article two of the periodically updated, multi-authored "[transhumanist declaration](#)" continues to assert the point: "We favor morphological freedom – the right to modify and enhance one's body, cognition and emotions."

To date, areas to improve on include natural ageing (including, for die-hards, the cessation of "involuntary death") as well as physical, intellectual and psychological capacities. Some distinguished scientists, such as Hans Moravec and Raymond Kurzweil, even [advocate](#) a

posthuman condition: the end of humanity's reliance on our congenital bodies by transforming "our frail version 1.0 human bodies into their far more durable and capable version 2.0 counterparts".



Credit: AI-generated image ([disclaimer](#))

The push back against such unchecked optimism is emphatic. [Some find](#) the rhetoric distasteful in its assumptions about the desire for a prosthetic future.

And potential ethical problems, in particular, are raised. Tattoos, piercings and cosmetic surgery remain a matter of [individual choice](#), and amputations a matter of medical necessity. But if augmented sensory capacity, for instance, were to become normative in a particular field, it might coerce others to make similar changes to their bodies in order to

compete. As Isaiah Berlin once [put it](#): "Freedom for the wolves has often meant death to the sheep."

## Augmented human hearing

In order to really get to grips with the meaning of all this, though, an example is needed. Take the hypothetical augmentation of human hearing, something I am researching within a broader project on [sound and materialism](#). Within discussions of transhumanism, ears are not typically among the sense organs figured for enhancement.

But human hearing is already being augmented. Algorithms for transposing auditory frequencies already exist (common to most speech processors in cochlear implants and hearing aids). [Research](#) into the regeneration of cilia hairs in the cochlear duct is also [ongoing](#). Following this logic, augmenting unimpaired hearing need be no different, in principle, to correcting impaired hearing.

What next? Acoustic sound forms a tiny part of the vast, inaudible electromagnetic spectrum, and various animals access different portions of this acoustic space, portions to which we—as humans—have no access. [Could this change?](#)

If it does, this may well alter the identity of sound itself. [Speculations](#) as to whether what is visible as light might under other circumstances be perceivable as sound have arisen at various points over the past two centuries. This raises heady questions about the very definition of sound. Must it be perceived by a human ear to constitute sound? By a sentient animal? Can a machine hear sufficiently to define sound beyond the human auditory range? What about aesthetics? Aesthetics itself—as the (human) study of the beautiful—may no longer even be applicable.

## All hypothetical?

The technologies for broaching such questions are arguably already at hand. Examples of auditory sense augmentation (broadly conceived) include Norbert Wiener's so-called "[hearing glove](#)", which stimulated the finger of a deaf person with [electromagnetic vibrations](#); an implanted colour sensor that—for its colour-blind recipient, [Neil Harbisson](#)—converts the colour spectrum into sounds, including ultraviolet and infrared signals; and a cochlear [implant](#) that streams sounds wirelessly from Apple's mass market devices directly to the auditory nerve of its recipients.

The discussion is not entirely hypothetical, in other words. So what does all this mean?

There is a famous scene in the film [The Matrix](#) in which Morpheus asks Neo whether he wants to take the blue pill or the red pill. One returns him unawares to his life of total physical and mental enslavement within the simulation programme of the Matrix, the other gives him access to the real world with all its brutal challenges. But after experiencing this, he can never go back to life within the Matrix, and must survive outside it.

Advocates of transhumanism face a similar choice today. One option is to take advantage of the advances in nanotechnologies, [genetic engineering](#) and other medical sciences to enhance the biological and mental functioning of human beings (never to go back). The other is to legislate to prevent these artificial changes from becoming an entrenched part of humanity, with all the implied coercive bio-medicine that would entail for the species.

Of course, the reality of this debate is more complex. Holding our scepticism in abeyance, it still supersedes individual choice. Hence the

question of agency remains: who should have the right to decide?

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