

# A GLIMPSE INTO THE FUTURE

## THE ROAD TO TRANSHUMANISM OR WHAT DOES IT MEAN TO BE HUMAN?



5 *What does it mean to be human? Biology has a simple answer: If your DNA is consistent with Homo sapiens, you are human — but we all know that humanity is a lot more complex and nuanced than that. Other schools of science might classify humans by their sociological or psychological behavior, but again we know that actually being human is more than just the sum of our thoughts and actions. You can also look at being human as a sliding scale. If you were to build a human from scratch, from the bottom up, at some point you cross the threshold into humanity — if you believe in evolution, at some point we ceased being a great ape and became human. Likewise, if you slowly remove parts from a human, you cross the threshold into inhumanity. Again, though, we run into the same problem: How do we codify, classify, and ratify what actually makes us human?*

10 Does adding empathy make us human? Does removing the desire to procreate make us inhuman? If I physically alter my brain to behave in a different, non-standard way, am I still human? If I have all my limbs removed and my head spliced onto a robot, am I still human? At first glance these questions might sound inflammatory and hyperbolic, or perhaps surreal and sci-fi, but don't be fooled: In the next decade, given the continued acceleration of computer technology and biomedicine, we will be forced to confront these questions and attempt to find some answers.

15 Transhumanism is a cultural and intellectual movement that believes we can, and should, improve the human condition through the use of advanced technologies.

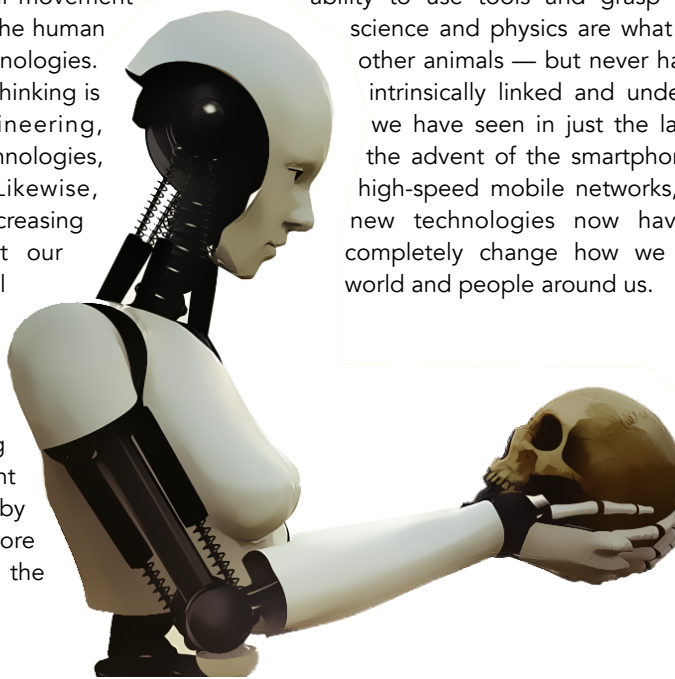
20 One of the core concepts in transhumanist thinking is life extension: Through genetic engineering, nanotech, cloning, and other emerging technologies, eternal life may soon be possible. Likewise, transhumanists are interested in the ever-increasing number of technologies that can boost our physical, intellectual, and psychological capabilities beyond what humans are naturally capable of (thus the term transhuman).

25 Transcranial direct current stimulation (tDCS), for example, which speeds up reaction times and learning speed by running a very weak electric current through your brain, has already been used by the US military to train snipers. On the more extreme side, transhumanism deals with the

45 concepts of mind uploading (to a computer), and what happens when we finally craft a computer with greater-than-human intelligence (the technological singularity).

Beyond the obvious benefits of eternal life or superhuman strength, transhumanism also investigates the potential dangers and ethical pitfalls of human enhancement. In the case of life extension, if every human on Earth suddenly stopped dying, overpopulation would trigger a very rapid and very dramatic socioeconomic disaster. Unless we stopped giving birth to babies, of course, but that merely 50  
rips open another can of worms: Without birth and death, would society and humanity continue to grow and evolve, or would it stagnate, suffocated by the accumulated ego of intellectuals and demagogues who just *will not die*? Likewise, if only the rich have access to intelligence- and strength-boosting drugs and technologies, what would 55  
happen to society? Should everyone have the right to boost their intellect? Would society still operate smoothly if everyone had an IQ of 300 and five doctorate degrees?

60 As you can see, things get complicated quickly when discussing transhumanist ideas — and life extension and augmented intelligence and strength are just the tip of the iceberg! This philosophical and ethical complexity stems from the fact that transhumanism is all about fusing humans with technology — and technology is advancing, improving, and breaking new ground very, very quickly. 65  
Humans have always used technology, of course — our ability to use tools and grasp concepts such as science and physics are what set us apart from other animals — but never has society been so intrinsically linked and underpinned by it. As 70  
we have seen in just the last few years, with the advent of the smartphone and ubiquitous high-speed mobile networks, just a handful of new technologies now have the power to completely change how we interact with the 75  
world and people around us.



# A GLIMPSE INTO THE FUTURE


Humans, on the other hand, and the civilizations that they build, move relatively slowly. It took us millions of years to discover language, and thousands more to discover medicine and the scientific method. In the few thousand years since, up until the last century or so, we doubled the human life span, but neurology and physiology were impenetrable black boxes. In just the last 100 years, we've doubled our life span again, created bionic eyes and powered exoskeletons, begun to understand how the human brain actually works, and started to make serious headway with boosting intellectual and physical prowess. We've already mentioned how tDCS is being used to boost cranial capacity, and as we've seen in recent years, sportspeople have definitely shown the efficacy of physical doping. It is due to this jarring juxtaposition — the historical slowness of human and societal evolution vs. the breakneck pace of modern technology — that many find transhumanism to be unpalatable. After all, as I've described it here, transhumanism is almost the very definition of *unnatural*. You're quite within your rights to find transhumanism a bit, well, weird. And it is weird, don't get me wrong — but so are most emerging technologies. Do you think that your great grandparents weren't wiggled out by the first television sets? Before it garnered the name "television," one of its inventors gave it the rather spooky name of "distant electric vision." Can you imagine the wariness in which passengers approached the first steam trains? Vast mechanical beasts that could pull hundreds of tons and moved far faster than the humble — but state-of-the-art — horse and carriage. The uneasiness that surround new, paradigm-shifting technologies isn't new, and it has only been amplified by the exponential acceleration of technology that has occurred during our lifetime. If you were born 500 years ago, odds are that you wouldn't experience a single societal-shifting technology in your lifetime — today, a 40 year old will have lived through the creation of the PC, the internet, the smartphone, and brain implants, to name just a few life-changing technologies. It is unsettling, to say the least, to have the rug repeatedly pulled out from under you, especially when it's your livelihood at stake. Just think about how many industries and jobs have been obliterated or subsumed by the arrival of the digital computer, and it's easy to see why we're wary of transhumanist technologies that will change the very fabric of human civilization. The good news, though, is that humans are almost infinitely adaptable. While you or I might balk at the idea of a brain-computer interface that allows us to download our memories to a PC, and perhaps upload new memories a la *The Matrix*, our children — who can use smartphones at the age of 24 months, and communicate chiefly through digital means — will probably think nothing of it. For the children of tomorrow, living through a series of disruptive technologies that completely change their

lives will be the norm. There might still be some resistance when I opt to have my head spliced onto a robotic exoskeleton, but within a generation children will be used to seeing Iron Seb saving people from car crashes and flying alongside airplanes.

The fact of the matter is that transhumanism is just a modern term for an age-old phenomenon. We have been augmenting our *humanity* — our strength, our wisdom, our empathy — with tools since prehistory. We have always been spooked by technologies that seem unnatural or that cause us to act in inhuman ways — it's simply human nature. That all changes with the children of today, however. To them, anything that *isn't* computerized, digital, and touch-enabled seems unnatural. To them, the smartphone is already an extension of the brain; to them, mind uploading, bionic implants and augmentations, and powered exoskeletons will just be par for the course. To them, transhumanism will just seem like natural evolution — and anyone who doesn't follow suit, just like those fuddy-duddies who still don't have a smartphone, will seem thoroughly inhuman.

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1. Introduce the document
  2. Define what is « transhumanism ».
  3. Give the example of an experiment that was conducted to prove this theory.
  4. What are the dangers of transhumanism?
  5. Explain the relation between humans and tools.
  6. Compare human evolution to technological evolution.
  7. Describe people's reaction to the emerging technologies.
    - Think about personal examples to illustrate this fact.
  8. « It is unsettling, to say the least, to have the rug repeatedly pulled out from under you, especially when it's your livelihood at stake »
    - Explain this quote and do you feel concerned by this situation?
  9. What's the journalist's view upon the new generations and their relation to transhumanism?



answer the online quiz  
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