



## transhumanism

By Helen Barratt

Previously the domain of science fiction authors, the integration of technological aids into the human body is becoming a reality. Transhumanists claim that this will develop so far that we create cyborgs, beings that are part human – part machine. They believe that we face a future where humans will have to radically improve their performance if they are going to stay ahead of these new beings. The thinking around transhumanism forces us to ask questions about the human species.

All human enhancement technologies, start from the premise that we can overcome present limitations. A consistent desire is to develop anti-ageing technologies. Transhumanists take the idea a step further with the aim of engineering a 'better' human being. This could be via genetic enhancement or the development of human-machine cyborgs, or the creation of transhumans – beings that have been changed so much that they are a technologically designed species of their own.

Transhumanists hold that human nature is a work in progress, 'a half-baked beginning that we can learn to remould in desirable ways'.<sup>1</sup> The philosophy underlying transhumanism seeks to make humanity grow beyond its present state to what is perceived to be its full potential. It claims that we no longer need to be bound by biological evolution, but that by harnessing technology we can

choose our own path of development. For transhumanists, the era of 'autoevolution' has begun and the responsibility for human development is now ours alone; we can choose what we want to become and how we want to become it.

In its present form the transhumanist movement has developed over the past two decades and is still evolving, but it traces its roots back to the rational humanism that emerged from the Renaissance era. It believes in the ultimate power of human ingenuity and effort, and the rights of the individual. It rejects belief in any supernatural power controlling or guiding us. Indeed, transhumanism shares many elements of humanism, including a respect for reason and science, and a commitment to progress. Transhumanism, however, goes beyond humanism and argues for a progressive libertarian bioethic that demands a drive to expand and improve human performance.

Transhumanism also reflects aspects of both modern and postmodern thought. Modernism's faith lies in inevitable progress, as well as the importance of science and technology. Autonomy is vital, and each individual has a right to engineer their own evolution. Postmodernism rejects objective truth and has led to the belief that there is nothing intrinsically valuable about the human form. Human beings thus become free to change themselves in whatever manner they choose.

In addition, transhumanists take an extreme materialist position. They see human beings as just another machine, and one that can and should be developed and improved.

Much of this conflicts with Christian bioethics, which start with the claim that human beings are made in the image of God. As such they are made to represent and reflect the Creator, and are the crowning work of creation. Transhumanism claims that humanity has the capacity to seize these representatives of God on earth and remould them to fit our own blueprints.

### Transhumans and posthumans

The use of technology to improve the human race has sparked the imagination of numerous science fiction writers, such as HG Wells, and has spawned countless Hollywood films such as Gattaca and AI. However, the drive to enhance human nature is slowly entering mainstream scientific culture and in 2001 the National Science Foundation, the National Science and Technology Council, and the Department of Commerce in the USA published 'Converging Technologies for Improving Human Performance', a manifesto for government sponsorship of enhancement techniques such as biotechnology, information technology, and cognitive science.

A group of academic philosophers and scientists are fighting to get transhumanism accepted intellectually. Prominent among them are Nick Bostrom and David Pearce who together co-founded the World Transhumanist Association (WTA) in 1997. Bostrom was formerly a lecturer in the Department of Philosophy at the University of Yale, and is now based at Oxford University.

Another transhumanist is Kevin Warwick, Professor of Cybernetics at the University of Reading. He

believes he is the world's first 'cyborg' on the basis that in 1998 he implanted a electrode into the median nerve in his arm. This is connected to micro-electronics that transmit and receive radio signals from a computer and has enabled him to control a simple, remote robotic hand. The extent of the transhumanist dream can be seen in an interview that he gave for Wired magazine. Warwick famously<sup>1</sup> said: 'I was born human, but it was an accident of fate - a condition merely of time and place.'<sup>2</sup> He believes that humans will need to merge with machines if we are to be able to compete with the intelligent computers predicted to emerge within the next century.

Transhumanists have coined the term 'posthumans' for such possible future beings whose basic capacities so radically exceed those of present humans that they are no longer human. Depending on the enhancements involved, they claim that posthumans could be completely synthetic artificial intelligences, or simply the result of many small but profound augmentations to a conventional human organism.

Although we are unable to envisage exactly what it would be like to be a posthuman, we can conceive, perhaps thanks to science fiction, of beings that are much smarter than us, that can read books in seconds, or create artworks which would strike us as wonderful masterpieces. Transhumanists argue that we need to leave room in our thinking for the possibility of these greater capacities, and the new values that they might bring with them.

### The science of immortality

Transhumanism seeks to transcend all limits to life, intelligence, freedom, knowledge and happiness. In particular it considers that science, technology and reason must be employed to abolish the greatest evil of all, death. Bostrom identifies our relatively short lifespan as one of several human limitations to be overcome by enhancement

technologies. It is perhaps the ultimate limitation. Termed biogerontology, the quest is to track down the molecular, evolutionary and social causes of ageing so that we can add not just a couple of extra years of sickness and debility at the end of life, but many more happy, healthy, productive years – to expand the human 'healthspan'.

In holding that death should be entirely voluntary, transhumanists reluctantly say people must be free to reject the options provided by life-prolonging technologies and instead choose death. Choice must be respected. Voluntary euthanasia, under conditions of informed consent, is also a basic human right in the transhumanist worldview. However, transhumanists are critical of 'deathists' who seek to make excuses for death and ageing and of 'deathist' philosophies that they consider to be reckless and dangerous because they teach helplessness and encourage passivity.

### Transhuman technology

It seems that the philosophical and political prominence of these transhumanist ideas is likely to increase as discussion of the opportunities for human enhancement proliferates. As well as biogerontology, there are several other emerging technologies that may contribute to this.

The beginning of the 21<sup>st</sup> century is a time of tremendous genetic optimism, and for transhumanists the potential is vast. It seems likely that virtually all illnesses and most human traits – intelligence, temperament, physical appearance, etc – involve at least some genetic contribution. Transhumanists hope that genetic engineering will enable a directed alteration of genetic material that could not simply treat disease, but radically modify human nature.

The study of cybernetics, which involves integrating humans and machines to create cyborgs offers other potential routes of investigation. And Warwick believes it has far-reaching consequences: 'Ultimately, humans will

become a lower form of life, unable to compete with either intelligent machines or cyborgs.'<sup>3</sup>

### Treating or enhancing?

Transhumanists claim that to a certain extent all of us who rely on technological innovations such as contact lenses, hearing aids or prostheses could be considered cyborgs. But to be more precise a cyborg is not simply a tool user, but a being where the technological aid is an integral part of his or her body. There is therefore a need to see a gradation between someone using a tool and a cyborg who has been technologically enhanced. It could be seen as the difference between treatment and enhancement. There is then a leap in imagination to the transhuman being.

While transhumans are still flights of fancy, there is a need to define the difference between 'therapy', treating known diseases and disabilities, and 'enhancement', altering the 'normal' workings of the body. As chairman of America's President's Council on Bioethics from 2001 to 2005 Leon Kass notes, 'therapy is always ethically fine, enhancement is, at least prima facie, ethically suspect. Gene therapy for cystic fibrosis or Prozac for psychotic depression is fine; insertion of genes to enhance intelligence or steroids for Olympic athletes is not.'<sup>4</sup> His example appears to be an open and shut case, but is it that easy? Does, for example, life extension constitute a medical treatment in the usual sense? Would extending a life beyond the current average span go beyond a medical commitment to treat pathology?

Eliminating a disease such as cystic fibrosis, or possibly tinkering with a natural process like ageing is one debate, but we encounter yet more ethical complexities if we take transhumanism to its ultimate goal of engineering 'better' humans, for example via cybernetics. Arguably, this is no longer a question about a definition of treatment, but more to do with the appropriateness of a quest for some notional physical perfection. The difficulty in drawing the line between

acceptable and unacceptable is self-evident, because a treatment for you may be an enhancement to me.

However, their aim goes way beyond treatment. Researchers are exploring how to combine humanity and technology at a much more fundamental level. For example, transhumanists talk about downloading a person's mind and experience into some, as yet undeveloped, super computer that would enable them to live for ever. In this virtual reality environment the 'person' could then live his or her dreams free from distractions like disease or death. Less extreme proposals point to the development of technologies that will constantly repair our bodies so that they never fail.

Although such enhancement technologies seem distant from our present reality, they appear to offer a great promise of a better, happier life for the generations who will follow us. However, the prospect of an enhanced future brings with it a darker side. Books by writers like Bill McKibben,<sup>5</sup> Francis Fukuyama<sup>6</sup> and Lee Silver<sup>7</sup> make sobering reading. They present a glimpse of the potential practical realities of a posthuman future, such as safety, and regulating access to the technology. But they do not question the underlying drive to develop enhancement technologies, or the transhumanist attitude that underlies the political lobbying. They simply buy into the idea that *Homo sapiens* are just a work in progress.

### The God of technology

Despite the claims of the transhumanists, Christianity recognises that the quest for technology is a part of our God-given nature. As Denis Alexander notes, 'we may conclude that God is himself the arch-technophile and the ultimate enabler of human technology.' In the first chapter of Genesis, God creates the material universe from nothing, and repeatedly describes his creation as 'good'. He has likewise endowed us with great creative abilities.<sup>8</sup>

Technology continues to enhance humanity's ability to live effectively as God's representatives in the world and spread the gospel. In the area of medicine alone, huge advances in patient care have come about as the result of technological progress. It is important, however, to be realistic and recognise that although it potentially offers great goods, the desire to ignore God means that technological innovations will not produce true happiness.

Christians see God's vision for technology and creativity right through the Bible. Adam and Eve are to work with God, unlocking the earth's resources for the benefit of the human race.<sup>9</sup> This role still persists after humans start disobeying God. As a consequence of this 'Fall' the work becomes much harder.<sup>10</sup> But desire to ignore God seems to be escalating, and God's gifts of both technology and dominion are increasingly abused. Later in Genesis<sup>11</sup> the builders of Babel set about constructing a tower that will reach the heavens. They are driven by a desire to 'make a name' for themselves. Professor of Neonatology, John Wyatt writes: 'Babel symbolises the myth of technology which recognises no limits to human technical possibilities – technology that is used to seize God's rightful place as creator, and to overturn creation order.'<sup>12</sup>

### Ageing

Nick Bostrom considers the search for a cure for ageing to be 'an urgent, screaming moral imperative.'<sup>13</sup> The evils of ageing – increasing loss of function, infirmity and the onslaught of degenerative conditions such as Alzheimer's disease – are real, and a consequence of living in a fallen world ravaged by sin. But maturity itself is not evil. The Bible directs us to respect the elderly<sup>14</sup> and suggests that age brings wisdom and understanding.<sup>15</sup>

God did not intend us to be autonomous individuals, but instead created humans for relationship, first with God, and then with each other. The disability that accompanies ageing provides us with

opportunities for learning to give and receive love and support. According to the Bible, human beings should exist in community and 'carry each others burdens'.<sup>16</sup>

Christianity can join with transhumanism in expressing outrage against the pain and restrictions that accompany the ageing process, but it would not diminish the elderly, or encourage autonomy over the mutual dependence of community.

### Death: the last enemy

Transhumanists regard death as the ultimate limitation on humanity and a major hurdle to be overcome. For Christians too death is the last enemy,<sup>17</sup> and a constant reminder of what happens when humans disobey God. Transhumanism rejects both God and his rules, but also seeks to reject the punishment of death meted out by him.

The Bible describes death's entrance into the world as a result of Adam and Eve's disregard of God's laws.<sup>18,19</sup> Scripture regards death as unnatural and not part of God's original intention for his human creation. John Stott observes, 'Only if Adam disobeyed... would he "surely die".' He goes on to conclude that physical death was included in the curse of Genesis 3:17-19 and that Adam became mortal when he disobeyed.<sup>20</sup> Death became a reality for all mankind, and humans are now 'like the beasts that perish'.<sup>21</sup> We were demoted to the level of the other creatures.

Transhumanists seem prepared to go to extraordinary lengths to preserve life and postpone death and ageing. For Christians however, there is a better answer: the writer to the Hebrews tells us that Christ came to 'free those who all their lives were held in slavery by their fear of death.'<sup>22</sup> The Bible gives us a tremendous picture of the hope believers have beyond the grave.

Within the Bible death is not a totally negative concept. At the end of the story of man's Fall in the third chapter of Genesis, God banishes Adam and

Eve from the Garden of Eden so they will not be able to eat from the tree of life. Some Christians interpret this as God's way of ensuring that humans will not live forever.<sup>23</sup> John Wyatt writes that 'in God's providential care of his creation, then, human beings are not meant to live forever in their degraded fallen state. The human lifespan is limited, not just as a curse, but out of God's grace.'<sup>24</sup>

While transhumanists are critical of 'deathists' who make excuses for our shortened lifespan life, Christians retain an intuitive sense of outrage at the intrusion and tragedy of death, but balance this against our future hope in Christ's victory over it. Also, although death is degrading, the end of life may well be evidence of God's grace and, in the words of the author CS Lewis a 'severe mercy'

### Regarding the Image

Transhumanists also disregard man's essential nature and his place within creation. This is in marked contrast to a Christian understanding of humanity which sees us as the crowning work of creation, the image of God representing and reflecting his Creator.<sup>25</sup> Consequently the killing of humans is forbidden because they are made in the image of God,<sup>26</sup> and this notion of image is what sets human beings apart from the rest of creation. It marks man out as more like God than any other creature.

In this way Christianity is inherently 'specieist', making moral distinctions on the basis of species, particularly between humans and the rest of the animal kingdom. This contrasts once again with transhumanism, which rejects any unique moral status for humans.<sup>27</sup>

For transhumanists the body is open to our manipulation and even dispensable.<sup>28</sup> According to the Bible, our bodies are crucial to our humanity. This is resoundingly confirmed by both the incarnation and resurrection of Christ. Jesus' physical resurrection body not only affirms the general goodness of God's original creation, but specifically man created in his own image as the climax of creation, with a physical body that is described in Genesis 1:31 as 'very good'.<sup>29</sup>

## Conclusion

Christians need to avoid simplistic anti-technology over reactions, acknowledging that technology is not inherently evil and that it can bring great benefits. For now the debate about human enhancement appears to be simply an academic problem, but it is emerging in the literature, and the underlying concepts are seeping into mainstream academia.

Of all the concerns about transhumanism, perhaps the most important is its opposition to the scriptural view of what it means to be human. The Bible demonstrates that mankind is set apart from the rest of creation because each of us bears the image of God himself. Christians see the ultimate endorsement of our physical nature in the incarnation and resurrection of Jesus Christ. In seeking to determine how best to harness the promise of the emerging biotechnologies, Christians must be guided by God's vision of perfection for humanity. Christians acknowledge the damage to creation inflicted by sin and the Fall, but cannot align themselves with the loathing transhumanism demonstrates for the human state and its finitude.

It seems sadly ironic that many transhumanist goals are freely available to Christians. God's desire to provide and care for us limits the sufferings currently present in the world, and gives us the chance of eternal life free from pain and the burden of a frail body. Transhumanists, however, rely on their own power to save themselves, rather than accepting God's promise of a truly human future with him.

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## References

- 1 Bostrom N. *Transhumanist Values*. 2000. [www.nickbostrom.com/ethics/values.html](http://www.nickbostrom.com/ethics/values.html)
- 2 Warwick K. Cyborg 1.0. *Wired* 8.02. February 2000. [www.wired.com/wired/archive/8.02/warwick.html](http://www.wired.com/wired/archive/8.02/warwick.html)
- 3 Warwick K. I want to be a cyborg. *Guardian* 2000; January 26. [www.guardian.co.uk/Archive/Article/0,4273,3954989,00.html](http://www.guardian.co.uk/Archive/Article/0,4273,3954989,00.html)
- 4 Kass L. Ageless Bodies, Happy Souls: Biotechnology and the Pursuit of Perfection. *The New Atlantis*. Number 1, Spring 2003. pp 9-28. [www.thenewatlantis.com/archive/1/kass.htm](http://www.thenewatlantis.com/archive/1/kass.htm)
- 5 McKibben B. *Enough: Genetic Engineering and the End of Human Nature*. London: Bloomsbury. 2003
- 6 Fukuyama F. *Our Posthuman Future: Consequences of the Biotechnology revolution*. London: Profile Books. 2002
- 7 Silver L. *Remaking Eden*. London: Weidenfield and Nicolson. 1998
- 8 Alexander, D. Worshipping God with technology. *Cambridge Papers*. 2004; 12(4)
- 9 Genesis 1:27-28
- 10 Genesis 3:16-17
- 11 Genesis 11:1-9
- 12 Wyatt J. *Matters of Life and Death*. Leicester: IVP. 1998. p68
- 13 Bostrom, N. The Fable of the Dragon-Tyrant. *JME* 2005; 31:275-7. [www.nickbostrom.com/fable/dragon.html](http://www.nickbostrom.com/fable/dragon.html)
- 14 Leviticus 19:32
- 15 Job 12:12; 32:7
- 16 Galatians 6:2
- 17 1 Corinthians 15:26
- 18 Genesis 2:16-17
- 19 Genesis 3:19
- 20 Stott J.R.W. *The Message of Romans*. Leicester: Inter-Varsity Press. 1994. p165
- 21 Psalm 49:12
- 22 Hebrews 2:15
- 23 Genesis 3:22-24
- 24 Wyatt J. *Matters of Life and Death*. Leicester: IVP. 1998. p65
- 25 Genesis 1:26-27
- 26 Genesis 5:1
- 27 Bostrom N. et al. *The Transhumanist FAQ*, v.2.1. World Transhumanist Association, Willington, CT. 2003. [www.transhumanism.org/resources/faq.html](http://www.transhumanism.org/resources/faq.html)
- 28 Hook C. *In Whose Image? Remaking Humanity Through Cybernetics and Nanotechnology*. 2002. [www.cbhd.org/resources/biotech/hook\\_2002-winter.html](http://www.cbhd.org/resources/biotech/hook_2002-winter.html)
- 29 Grudem W. *Bible Doctrine*. Leicester: Inter-Varsity Press. 1999. p263

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