



## **Becoming More Than Human: Technology and the Post-Human Condition Introduction**

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*Journal of Evolution and Technology* - Vol. 19 Issue 1 – September 2008 - pgs i-v  
<http://jetpress.org/v19/marsen.htm>

Humans have always imagined states of existence different from the ones that they experience in their everyday lives. In fact, the pervasive feeling of dissatisfaction with our physical constraints could be seen to be the main motivating factor for religious as well as scientific thought. From ancient mythologies to modern popular culture, humans have created myriad images of transformations of the body and mind into forms that allow them to interact with the world differently.

Why do humans search for perfection? This is by no means an easy question to answer: in fact it directs us to the numerous definitions that have been given to the question *what makes us human?* Dostoyevsky, after spending some time in a Siberian prison, came to the conclusion that the human is the creature that can adapt to anything (Dostoyevsky 1985). This is a significant definition because it highlights the human propensity to change in response to external circumstances – with both positive consequences (it helps us to survive), and negative ones (it induces us to blindly accept injustice). The harsh situation in which this definition was created also points to a major incentive that humans have for adapting: to avoid suffering – the suffering that comes from disease, isolation, poverty, oppression and prejudice.

We could therefore say that one reason that humans search for perfection, and for what the spiritually inclined would call transcendence, is because they are not only aware of suffering (arguably most animals are), but also, and more importantly, because they critically reflect on their suffering, and can recognize and reflect on the suffering of others. Deliberately changing what we are means, in many ways, letting go of what makes us suffer.

Transhumanism (or Human Plus, H+) is a social and philosophical movement that explores the uses of technology for the positive transformation of human capacities, and the social, political and ethical implications that such a transformation would carry. Its ideological uniqueness lies in an almost existentialist interpretation of science: while acknowledging the value of the scientific method – based on the principles of precision, objectivity and falsifiability – it foregrounds its relevance for social justice, self-determination and personal fulfilment, in other words, for improving the human condition. In transhumanism, therefore, science is “owned” differently than in humanism, where it was a symbol of human intellect, ingenuity and a key to the “truth.” The transhumanist perspective, generally, begins with

the question of human experience and then takes an activist approach, looking to science to find how it can alleviate suffering and thereby improve this experience.

The writers in this Special Issue agree that the use of science to alter and ameliorate human capacities is certainly not a new phenomenon. Looking only at the last hundred years or so, for example, we find scientific breakthroughs that have radically altered human existence, even though they are now so closely assimilated into our lives that we often take them for granted. To name just a few of these changes: the contraceptive pill has liberated women from the demands of reproduction and changed the structure of the workforce, antibiotics have obliterated previously fatal diseases, and aviation technology has facilitated rapid global travel. Because of such developments we have better control over our bodies, enjoy longer life spans and can make multiple and fast relocations to different parts of the planet, radically changing our life experiences.

What these writers also recognize, however, is that recent scientific developments have accelerated the rate of change, taking it into areas that cannot be predicted. Genome research, the imaging of the brain and the creation of more and more intelligent computers are re-defining and re-adjusting the level of control we have over our bodies, our lifestyles and the environment in which we interact. This context makes it imperative that we theorize science-driven changes so as to integrate them more rationally and effectively in our policies, social regulations and individual life plans (Hughes, 2004). This Special Issue offers a flavor of transhumanist approaches to this endeavor, and a glimpse into the transhumanist vision of the future of humanity.

In considering transhumanism, we should keep in mind that it is essentially a *human* (even if not *humanist*) movement. As Patrick Hopkins points out in his essay, transhumanist ideals stem from the propensity of humans to imagine themselves to be other than what they are. This propensity hides a paradox: what humans often strive to escape is what they have in fact evolved to be. The imagination creates environments that seem desirable but that may not be suitable for humans, which means that “we can long for what we are not actually any good at” (such as a state of existence with no struggle and adversity). Realizing this can lead either to an attempt at changing our evolutionary heritage into a literally *trans*-human state (something other than human), or to equating improvement with enhancement. The latter implication means we would aim to strengthen, rather than surpass, our evolved traits, thereby making ourselves *super*-human – what Hopkins aptly calls “superprimates.” Therefore, when considering technologies that can transform the human constitution, we need to decide carefully what we want to keep and what we want to discard, and what the assumptions and beliefs are behind each choice.

What are some ways in which such transhuman transformations can occur? A major theme of transhumanist discourses is the development of specific technologies aimed at assisting our quest to lead fulfilling lives. One area that has received much attention in this regard, both from transhumanist and cultural theorists, is computer technology and the electronic media. Cyberspace and the Internet, in particular, have been hailed as signalling the emergence of new conceptions of identity. There is widespread agreement that the Internet has produced new social settings and re-structured communication patterns and perceptions of space. Some have even paralleled its influence on social behavior to architectural changes and the effects of migration and urbanization (Meyerowitz 1985). At the same time, there is an increasing concern by others that such non-physical spaces encourage escapism, addictive behavior and emotional isolation. MIT media theorist Sherry Turkle represents this view when she says that “for those who are lonely yet afraid of intimacy, information technology has made it possible to have the illusion of companionship without the demands of friendship” (Turkle, 2004, n.p.).

Another way to explore information technologies, however, is through their potential to accurately assess an individual’s cognitive and/or emotive weaknesses or difficulties, and then offer the means to overcome them. In his article, William Bainbridge describes numerous examples of personalized information

technologies, where computer systems act as guides and mentors for the users. Originally developed to replace lost or damaged functions in the physically or cognitively disabled, such technologies are now being generalized to enhance “normal” human abilities. For example location-aware mobile computing has successfully helped cognitively impaired people to move around without getting lost. In the future, the functions of this technology could be expanded to include showing the users not only where they are, but also how close they are to locations that are suited to their disposition and values – where to go and where not to go.

Also, computer games are increasingly challenging traditional narrative form through increased user participation. Now, players must follow the dictates of the system and play a game “correctly,” if they are to enjoy the experience. One cannot play a game such as the hugely popular *Grand Theft Auto*, for example, non-aggressively or oppositionally, by leading the protagonist to perform charitable acts, or by propelling the story through the actions of marginal characters (Barr, Marsen and Noble 2005). The narrative structure of the game assumes certain values with which the player must comply in order to progress the action, making it more a case of the game playing the player than vice versa. Current computer game development, however, aims to change this and increase interactivity to the point where the player can give the story different endings, and direct the narrative action from different perspectives.

Having started as visual media with limited interactivity, computer games are becoming *immersive*, engaging more of the user’s senses, and even *pervasive*, where the simulated environment links with a person’s daily life. Virtual Reality is already being used to treat physical and emotional trauma, and Bainbridge imagines a future therapy, which he calls Displacement Therapy, where the system analyzes a user’s weaknesses and creates a pervasive environment where the user can safely perform actions that will enable him/her to overcome these weaknesses.

In a similar vein, Sam Kenyon examines the significance of the interface as a meeting ground between humans and machines, in a future where individuals will need to engage intimately with technology. Taking his lead from the prototypical conflict scenarios of Humans-Against-Machines and We-Become-Them, Kenyon shows how the perceived dichotomy between the machinic and the human is being bridged by implants that re-define boundaries of self, relationship with other, and perceptive ability.

Other writers look beyond the types and uses of emerging technologies to their philosophical and social implications. Comparing the transhumanist with the humanist approaches to science, Riccardo Campa raises the question of the motivations of the scientific endeavour itself. In its history and philosophical underpinnings, science emerged as a spiritual activity aimed at reaching the “truth” and pure knowledge. Is the transhumanist perspective changing science into an instrument for improving the human condition, and what are the epistemological implications of such a shift in attitude? In a parallel way, improving the human condition does not only entail developing technologies that overcome human limitations, but also involves satisfying existential concerns, which leads to a personally meaningful life. As Campa asks, can living forever replace knowing the sense of one’s life? And is it appropriate to look to science for the answer to this question?

In this trajectory into the meaning of science, Campa explores the relations between individual existence and the world in which this existence unfolds. It could be that the world is really alien to us, but it could also be that we are just not intelligent enough to understand it and in doing so re-negotiate our existence within it. In fact, it could be that our existential dissatisfaction and anxiety stem from cognitive underdevelopment, and should be seen as obstacles to overcome rather than as defining criteria of human sensibility.

Taking his lead from C. S. Lewis’ essay *The Abolition of Man*, Gregory Jordan also visits this theme, by pondering the concepts of “motivation,” “rationality” and “value,” and positing them against the model of

the technologically enhanced human. Jordan considers the possibility that by technologically modifying our minds we may have better access to the qualities that make us human. This access may in turn enable us to strengthen the characteristics that we consider as defining us positively. In some ways paradoxically, we may transcend human weaknesses by embracing essential human qualities such as benevolence, exuberance and tolerance, and gaining more control over them: the *trans* human may well be the *very* human.

How do changes in the human body and mind affect attitudes towards oneself and towards others, and what would their implications be for the norms and ethics of social interaction? Joseph Jackson invites us to re-consider our ideas of morality and aesthetics in the backdrop of a future world where physical appearance, sexual orientation and gender are no longer evolved or genetic traits but matters of choice and preference. In this world, “preferences are morally inert,” and all evaluation of individually selected enhancements should be seen as an aesthetic appreciation rather than a moral judgement.

However, such a world where an individual is empowered to choose his/her ability and appearance cries out for a socially recognized balance between one’s preferences and another’s – a monitor that would ensure that one’s preference does not become another’s obligation, such as in a “you have to become what I like” scenario. In fact, such a world cries out for a developed capacity to empathize. PJ Manney stresses the importance of empathy in any community that claims to be ruled by social justice and equal rights to happiness for all its members. Manney rightly points out that we already have a technology enabling us to develop empathic capacity. This technology is the universal trait we share as a species – our storytelling capacity. Storytelling, in particular in the form of sophisticated written narratives, such as novels, offers us a creative and safe space in which to hypothesize, project different outcomes to events, reflect on causal processes, and consider the effects of different emotions.

Actually, and perhaps in some ways paradoxically, by developing empathic inter-subjectivity, the ability to see the world from another’s perspective, we also become more objective and realistic. One of the greatest lessons to be learnt from empathy is that “otherness” is not something one has to deal with (but would rather not have to), but is actually a way through which one can conceptualize one’s own potential as more-than-self. The “other” can offer the “self” many occasions to reflect on what it would be like to live in a different physical form with its own strengths and weaknesses, as well as its own wishes, desires and fears. In this context, tolerance for “diversity” is transformed into something else: the potential to experience, even if vicariously, different possibilities of life. This potential in turn enables us to choose more appropriately our own social performances, and, in a transhuman future, perhaps even our forms of embodiment.

What are the implications of all these transhumanist ideas and possibilities for us humans as we exist now? Taking a practical perspective, George Dvorsky describes his daily habits as reflective of his transhumanist principles. From a description of what he eats every day to how he uses technology, Dvorsky gives an example of life choices informed by expectations of the future – what a human may do now in hope of leading a transhuman life in the future. In a parallel way, a possible perspective of the transhuman being itself is imaginatively narrated by Nick Bostrom, who takes a future perfect angle on existence, addressing the reader from a position of completion and arrival, set in a post-human future, rather than from a position of departure and uncertainty.

As Cory Doctorow points out in his essay, transhumanist ideas are as much about the present, and the human, as they are about the future, and the trans-human. More than merely describing an evolutionary inevitability, they mirror actual human desires and fears, and show us what we already possess, and what we would like to possess in our quest for perfection and the abolition of suffering. In doing this, transhumanist thought does more than just promote technology as a catalyst for human improvement. The insights it offers into our potential can absolve us from the primitive and paralyzing guilt that plagues our

search for happiness, pleasure and beauty, encouraging us instead to seek freely and purposely “sights more majestically beautiful, music more deeply soul-stirring, sex more exquisitely erotic, mystical epiphanies more awe inspiring, and love more profoundly intense” (Pearce 2007, n.p.)

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