

Facing a Future with Machines

by Andrew Linnell

If your son had an accident and lost a limb and was then outfitted with a prosthetic limb, would you still love your son? Of course you would. What if he lost two limbs? Three? How much of one's body would need to be replaced by a machine before one would toss in the towel and say I can no longer love this person? Early in the 20th century, the *merging* of Mankind with Machines began. Many of our loved ones already have pace makers, dialysis, or hearing aids. Many more "mergings" are in the works.

I have not done any survey but I suspect most people today can accept the machine as a prosthetic limb replacing a damaged natural limb or bionic aids augmenting a damaged sense organ, but when it comes to internal organs, I believe we enter a squeamish territory. Replacing the will-related body parts does not raise the warning flag about impacting our humanity as does replacing internal organs. What happens to our humanity when the operation of a liver is being largely conducted by an embedded machine? How much of the functioning of our heart can be done by a sophisticated "intelligent" pace maker? Does the one with an embedded machine change in any way? Replacing the thinking-related body parts seems to cause the most concern about de-humanizing our future.

Ray Kurzweil and much of the Artificial Intelligence (AI) community agree that the ultimate human organ is

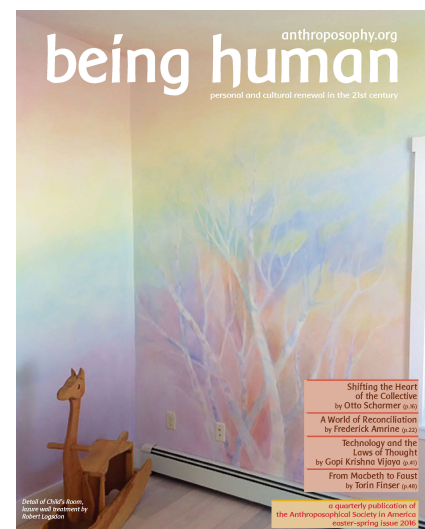
the brain. This camp would say we can replace all the other organs and body parts and we still have a human being. They would argue that the essence of the human being is its mind and this is found in the "software" of the brain. Thus, according to this camp, if one can migrate the software that represents the mind from a biological brain to an equivalent non-biological brain, then that mind will have achieved immortality.¹⁵

Perhaps we do not truly understand mortality and its role with the human being. Moreover, people who receive organ transplants find that they have new memories that apparently come with the new organ.¹⁶ Could our memories be outside of our brain? If so, where are our memories? What are our memories? When I think of a person or place from my past, typically more than a mere picture arises. Other sensory impressions from that past event arise too. And an emotional memory commonly fills our soul. When one sees a photograph taken in youth, more than visual

¹⁵ 2045 Initiative, Dmitry Itskov [2045.com]

¹⁶ Pearsall, Paul, *The Heart's Code*, Broadway Books, 1999

Early in the 20th century, the merging of Mankind with Machines began. Many of our loved ones already have pace makers, dialysis, or hearing aids. Many more "mergings" are in the works.



memory attributes can fill one's soul. Where is this memory content being kept and being experienced? If we lost our memory content, how would that affect our sense of a solid foundation to life and to a sense of "who I am"?

It was well established in the first century CE that the human being was a tripartite of body, soul, and spirit. In the 9th century, Western humanity had largely lost this knowledge and reduced the human to body and soul. As the 20th century dawned in the West, the concept of soul had been largely lost and the concept of body had been reduced to its chemical components. With humanity's creative focus fixed on the mineral kingdom, great and powerful machinery arose that could move mountains. Humans became able to move their bodies quickly from one place to another, over land, over sea, or through the air and even through space to the moon. We became adept at extending our senses to explore ocean depths or the outer bands of the solar system or the inner dynamics of a molecule or an embryo.

In the 19th century, a man and his horse were consid-

AI theorists deem the brain to be engineered by natural selection... With mutations over millions of years, today's brain has evolved... AI believes that the next step in the brain's evolution will come from mankind and be given to robots...

ered to become as one and "carriages were an extension of a person, like their clothes."¹⁷ Today, when one gets behind the wheel of a car, one is within a machine. As we drive this car, something in us merges with it as we get a feel for its functioning, its ability to respond to brake pressure, steering wheel adjustments, and the like. And as we drive on the highways, we can experience the mood of drivers about us, the aggressiveness of the driver on the road next to us, for example. Something of us permeates the vehicle. Is it soul?

When I make a phone call to a dear friend, my voice is digitized right in the phone itself. This digital signal makes its way through the internet, yes that same internet, eventually coming to my dear friend where the digital signal representing my voice is reconstituted to a facsimile of my voice—close enough that my friend recognizes it as my voice. Although we are not physically in the same room, we can have a conversation that has many of the same attributes as an in-the-same-room conversation. We can be emotional. We can be motivated. We

can feel our soul engaged. We find that our soul is not so bound by spatial obstacles. And our soul can deal with electrical transmission of voice facsimile as it can with artificial limbs and sensory organs. It can permeate bodily extensions such as an automobile.

The AI community, lacking a concept of soul, believes that we will eventually reverse-engineer the brain. Reverse engineering is done when one takes apart some man-made object to see how it was constructed. One discovers the object's inner workings and then can grasp the original engineering. Once that has been accomplished, one can devise improvements. The brain is deemed by AI theorists to be engineered by—well, by natural selection, with each improvement coming from a mutation. With mutations over millions of years, today's brain has evolved. Is the brain's evolution complete? AI believes that the next step in the brain's evolution will come from mankind and be given to robots into which we each will pour our mind.

Reverse engineering works with man-made objects because our mind can grasp the concepts that are "built in" to a man-made object. Such concepts are within the realm of the ponderable. But this begs the question, does the human brain (and body for that matter) arise from the ponderable or the imponderable? If imponderable, will we grasp enough to make a human-like brain?

As we have already done with sensory organs, many in the AI community expect brain augmentation to come before a fully reverse-engineered brain is ready for humanity. This would be some sort of implant that would enable us to perform "context switching" from our human mind to an augmented computational capability. For example, one might need to perform some arithmetic operation such as adding the prices of the items in one's shopping cart. This AI future would enable the person to visually scan the prices, pass this information to the embedded computer and receive back the result. This is similar to how we conceive today of the context switching that happens within the brain from the functioning of the right hemisphere to the left. The expectation is that, just we became adept at driving cars, we will become adept at such context switching.

As these AI scientists and brain engineers research this, I believe that they will "discover consciousness" just as the quantum physicists did. The "hard problem" of consciousness¹⁸ will show the fallacy of this brain research. While we wish we would not need to waste so

¹⁷ Transportation Past, Present, and Future [www.thehenryford.org/education/erb/TransportationPastPresentAndFuture.pdf]

¹⁸ [en.wikipedia.org/wiki/Hard_problem_of_consciousness]

much money pursuing this goal, we do need more “proof” that consciousness exists outside of the body. Near-death research¹⁹ may help to achieve this understanding. I expect this research will prove that consciousness does not require a functioning brain.

While many in our anthroposophical community may have the hair on their backs stand up in fear when they hear about the vision of the future seen by Ray Kurzweil and others, I want to remind us of this well-known verse by Rudolf Steiner entitled “Facing the Future”:

We must eradicate from the soul all fear and terror of what comes towards Mankind, out of the future. We must look forward with absolute equanimity to whatever comes, and we must think only that whatever comes is given us by a world direction full of wisdom. It is part of what we must learn during this age, namely to act out of pure trust in the ever present help of the spiritual world; truly nothing else will do if our courage is not to fail us. Therefore let us discipline our will, and let us seek the awakening from within ourselves, every morning and every evening.

We are in a time of great change. The world has seen great changes before such as the Ice Age, the end of Atlantis, the ending of the ancient mysteries, the entering into Earth evolution of the Christ, and the Renaissance. Our age begins the merging of Mankind and Machine. Once people thought that a human riding in a train at a speed of 20 miles per hour would suffer dreadfully in their nerves while the people nearby the passing train would suffer concussions.²⁰ Steiner says that this assessment was actually correct *for those times* but that since then our nerves have adjusted.

What science was saying was, in effect, that human beings would not be able to tolerate the demands made on their physical body via the astral body if the astral body, the animal part of the human being, did not constantly receive a correction, a therapy, through that which rays back up to the surface of the earth from the absorbed cometary substances, exercising a balancing effect on human capacities.

Are we today receiving cosmic forces into our astral body to cause new adjustments? Might this explain generational differences towards this subject?

19 Bush, Nancy Evans, foreword by Greyson, Richard, *Dancing Past the Dark: Distressing Near-Death Experiences*, 2012; and Fenwick, Peter, and Fenwick, Elizabeth, *The Art of Dying*, Bloomsbury Academic, 2008. See also Greyson video [youtu.be/Rtk644N2DDs] and the Near Death Experience Network with Robert Mays [nhnearthdeath.ning.com/profile/RobertMays]

20 Steiner, Rudolf, *Book of Revelation*, Lecture 16, GA 346

Perhaps the greatest “adjustment” humanity will need to make in the coming millennia is what to do about the growing infertility in women. Steiner claims that we will need to work with the fallen angels of darkness:

Not later than the seventh millennium in earth evolution women will grow infertile, and reproduction will no longer be possible. If matters went entirely according to the normal Angelic spirits in the blood, human reproduction would not even continue for as long as this; it would only continue until the sixth millennium, or the sixth post-Atlantean period of civilization; according to the wisdom of light, the impulse for reproduction would not continue beyond this time in the seven periods of civilization in this post-Atlantean age. However, it will go on beyond this, into the seventh millennium and possibly a little beyond. The reason will be that those cast-down Angels will be in charge and will give the impulses for reproduction.²¹

Is this the cause for our merging of man and machine as a training period for mankind to be able to build bodies that allow for continued incarnation? If we use a roughly 700-year incarnation cycle, then we have only about six more incarnations to complete the fulfillment of our karma and prepare these new vehicles.

What happens after that? That would be after the “War of All Against All” when we enter the Sixth Epoch, when the Astral world “descends” into human life. Today, in the Fifth Epoch (which includes the Post-Atlantean cultural epochs), we are in the time of the descent of the etheric. The battle of our time is not about what will come but about how it will come. Who will make the call how new technologies are introduced into society and human life? It comes down to a battle for the Etheric Realm.²² It is a personal struggle to find the Etheric Christ.

Andrew Linnell (jandrewlinnell@yahoo.com), a 40-year veteran of the field of computers and related technologies, has served as president of the Anthroposophical Society in Greater Boston.

21 Steiner, Rudolf, *Fall of the Spirits of Darkness*, Lecture 14, GA 177

22 Thomas, Nick, *The Battle for the Etheric*, Temple Lodge Press, 2006