

Does the Future Need Us? The Future of Humanity and Technology

The voices of some educated, thoughtful people are starting to raise questions about just how human we can remain in the face of developing technology. Don Closson examines those concerns and provides a Christian response.

In April of 2000, Bill Joy ignited a heated discussion concerning the role of technology in modern society. His article in *Wired* magazine became the focus of a growing concern that technological advances are coming so quickly and are so dramatic that they threaten the future existence of humanity itself. It is relatively easy for baby-boomers to discount such apocalyptic language since we grew up being entertained by countless movies and books warning of the dire consequences from uncontrolled scientific experimentation. We tend to lump cries of impending doom from technology with fringe lunatics like Ted Kaczynski, the Unabomber. Kaczynski killed three people and injured others in a seventeen-year attempt to scare away or kill researchers who were close to creating technologies that he felt might have unintended consequences.

But Bill Joy is no Ted Kaczynski. He is the chief scientist for Sun Microsystems, a major player in computer technology and the Internet. He played an important role in the founding of Sun Microsystems and has been instrumental in making UNIX (operating system) the backbone of the Internet. So it is a surprise to find him warning us that some types of knowledge, some technologies should remain unexplored. Joy is calling for a new set of ethics that will guide our quest for knowledge away from dangerous research.

Another voice with a similar warning is that of Francis Fukuyama, professor of political economy at Johns Hopkins University. His book *Our Posthuman Future* asks disturbing questions about the potential unintended results from the current revolution in biotechnology. He writes, “the most significant threat posed by contemporary biotechnology is the possibility that it will alter human nature and thereby move us into a “posthuman” stage of history.” Once human nature is disrupted, the belief that we are created equal might no longer be tenable causing both civil and economic strife.

There is also a Christian tradition that questions modernity’s unrestrained quest for technological power. C. S. Lewis warned us of a society that has explained away every mystery, and the danger of what he calls “man-molders.” He states that “the man-molders of the new age will be armed with the powers of an omni-competent state and an irresistible scientific technique: we shall get at last a race of conditioners who really can cut out all posterity in what shape they please.”^{1} In his book *The Technological Society*, Jacques Ellul argues that we have come to the place where rationally arrived-at methods and absolute efficiency are all that really matters.^{2}

Let’s consider the many voices warning us of the unintended consequences of modern technology.

Three Dangerous Technologies

Bill Joy argues that humanity is in danger from technologies that he believes are just around the corner. His concern is that robotics, genetic engineering, and nanotechnology present risks unlike anything we have created in the past. The key to understanding these new risks is the fact that these technologies share one remarkable potential; that is, self-replication. With all the present talk of weapons of mass destruction, Joy is more concerned about weapons of knowledge-enabled mass destruction. Joy writes:

I think it is no exaggeration to say that we are on the cusp of the further perfection of extreme evil, an evil whose possibility spreads well beyond that which weapons of mass destruction bequeathed to the nation-states, on to a surprising and terrible empowerment of extreme individuals.[\[3\]](#)

Joy believes that we will have intelligent robots by 2030, nano-replicators by 2020, and that the genetic revolution is already upon us. We all have a picture of what an intelligent robot might look like. Hollywood has given us many stories of that kind of technology gone wrong; the Terminator series for example.

The big debate today is whether or not true artificial intelligence is possible. Some like Danny Hillis, co-founder of Thinking Machines Corporation, believe that humans will probably merge with computers at some point. He says, "I'm as fond of my body as anyone, but if I can be 200 with a body of silicon, I'll take it."[\[4\]](#) The human brain would provide the intelligence that computer science has yet to create for smart robots. The combination of human and silicon could make self-replicating robots a reality and challenge the existence of mankind, as we know it today.

Nanotechnology is used to construct very small machines. IBM recently announced that it has succeeded in creating a computer circuit composed of individual carbon monoxide atoms, a remarkable breakthrough. Although dreamed about since the 1950's, nanotechnology has recently made significant progress towards the construction of molecular-level "assemblers" that could solve a myriad of problems for humanity. They could construct low cost solar power materials, cures for diseases, inexpensive pocket supercomputers, and almost any product of which one could dream. However, they could also be made into weapons, self-replicating weapons. Some have called this the "gray goo" problem. For example, picture molecular sized machines that destroy all edible plant life over a large

geographic area.

Surprisingly, Bill Joy concludes "The only realistic alternative I see is relinquishment: to limit development of the technologies that are too dangerous by limiting our pursuit of certain kinds of knowledge."

The End of Humanity?

History is filled with people who believed that they were racially superior to others; Nazi Germany is one obvious example. An aspect of America's uniqueness is the belief that all people are created equal and have rights endowed to them by their Creator that cannot easily be taken away. But what if it became overtly obvious that people are not equal, that some, because they could afford new genetic therapy, could have children that were brighter, stronger, and generally more capable than everyone else? This is the question being asked by Francis Fukuyama in his book *Our Posthuman Future*. The answer he comes up with is not comforting.

He contends that technology is at hand to separate humans into distinct genetic camps and that we will not hesitate to use it.

Fukuyama gives us three possible scenarios for the near future. First, he points to the rapid acceptance and widespread use of psychotropic drugs like Prozac and Ritalin as an indication that future mind altering drugs will find a receptive market. What if neuropharmacology continues to advance to the point where psychotropic drugs can be tailored to an individual's genetic makeup in order to make everyone "happy," without the side effects of the current drugs? It might even become possible to adopt different personalities on different days, extroverted and gregarious on Friday, reserved and contemplative for classes or work on Monday.

Next, advances in stem cell research might soon allow us to

regenerate any tissue in the body. The immediate result would be to dramatically extend normal human life expectancy, which could have a number of unpleasant social and economic implications. Finally, the feasibility of wealthy parents being able to screen embryos before they are placed in the womb is almost upon us. It would be hard to imagine parents denying their offspring the benefit of genetically enhanced intelligence, or the prospect of living longer lives free from genetic disease.

What will happen to civil rights within democratic nations if these predictions come true? Will we end up with a society split into subspecies with different native abilities and opportunities? What if Europe, for instance, is populated with relatively old, healthy, rich people and Africa continues to suffer economic deprivation with a far younger population ravaged by AIDS and other preventable diseases? Interestingly, Fukuyama believes that the greatest reason not to employ some of these new technologies is that they would alter what it means to be human, and with that our notions of human dignity.

The Christian basis for human dignity is the *imago Dei*, the image of God placed within us by our Creator. Many are questioning the wisdom of chemical and genetic manipulation of humanity, even if it seems like a good idea now.

Early Warnings

There is a long Christian tradition of looking at the surrounding world with suspicion. Whether it's Tertullian asking the question "what has Athens to do with Jerusalem," or the Mennonite's promotion of simplicity and separation, Christians everywhere have had to struggle with the admonition to be in the world but not of it. Recent advances in science and technology are not making this struggle any easier.

In his work *The Abolition of Man*, C. S. Lewis argued that humanity's so-called power over nature "turns out to be a

power exercised by some men over other men with Nature as its instrument.”^{5} His concern is that the modern omni-competent state combined with irresistible scientific techniques will result in Conditioners who have full control over the future of humankind. He feared that modernism and its ability to explain away everything but “nature” would leave us emptied of humanity. All that would be left is our animal instincts. The choice we have is to see humanity as a complex combination of both material and spiritual components or else to be reduced to machines made of meat ruled by other machines with nothing other than natural impulses to guide them.

Lewis writes:

For the wise men of old the cardinal problem had been how to conform the soul to reality, and the solution had been knowledge, self-discipline, and virtue. For magic and applied science alike the problem is how to subdue reality to the wishes of men: the solution is a technique; and both, in the practice of this technique, are reading to do things hitherto regarded as disgusting and impious.

The issue of technique and its standardizing effects was central to the thinking of sociologist Jacques Ellul in *The Technological Society*. Ellul argues that as a society becomes more technological it also becomes less interested in human beings. As he puts it, the technical world is the world of material things. When it does show an interest in mankind, it does so by converting him into a material object. Ellul warns that as technological capabilities grow, they result in greater and greater means to accomplish tasks than ever before, and he believes that the line between good and evil slowly disappears as this power grows.

Ellul worries that the more dependent we become on technology and technique, the more it conforms our behavior to its requirements rather than vice versa. Whether in corporate headquarters or on military bases much has been written about

the de-humanizing effect of the employment of modern technique.

Primarily, he fears that even the church might become enamored with the results of technique. The result would be depending less on the power of God to work through Spirit-filled believers and more on our modern organization and technological skills.

Summary

Without a doubt, technology can help to make a society more productive, and growing productivity is a major predictor for future increases in standards of living. Likewise, technology results in greater opportunities to amass wealth both as a society and for individuals. Communication technology can help to unify a society as well as equalize access to information and thus promote social mobility.

On the other hand, technology can cause harm to both the environment and individuals. The Chernobyl nuclear power disaster in Russia and the Bhopal industrial gas tragedy in India resulted in thousands of deaths due to technological negligence. The widespread access to pornography over the Internet is damaging untold numbers of marriages and relationships. Terrorists have a growing number of inexpensive technologies available to use against civilians including anthrax and so-called radioactive dirty bombs that depend on recent technological advances.

However, it must be said that most Christians do not view technology itself as evil. Technology has remarkable potential for expanding the outreach of ministries and individuals. Probe's Web site is accessed by close to 100,000 people every month from over one hundred different countries. Modern communications technology makes it possible to broadcast the Gospel to virtually any place on the planet around the clock.

However, in our use of technology, Christians need to keep two principles in mind. First, we cannot give in to the modern tendency to define every problem and solution in scientific or technological terms. Since the Enlightenment, there has been a temptation to think naturalistically, reducing human nature and the rest of Creation to its materialistic component. The Bible speaks clearly of an unseen spiritual world and that we fight against these unseen forces when we work to build God's kingdom on earth. Ephesians tells us "our struggle is not against flesh and blood, but against the rulers, against the authorities, against the powers of this dark world and against the spiritual forces of evil in the heavenly realms."^{6} Scientific techniques alone will not further God's kingdom. We must acknowledge that prayer and the spiritual disciplines are necessary to counter the adversary.

Second, we need to remember the power that sin has to tempt us and to mar our thinking. The types of technologies and their uses should be limited and controlled by biblical ethics, not by our desires for more power or wealth. We are to have dominion over the earth as God's stewards, not as autonomous tyrants seeking greater pleasure and comfort.

Notes

1. C. S. Lewis, *The Abolition of Man*, (New York: The MacMillan Company, 1972), 73.
2. Jacques Ellul, *The Technological Society*, (Vintage Books, 1964), p. xxv.
3. Bill Joy, "Why The Future Doesn't Need Us," *Wired*, April 2000.
4. Ibid.
5. Lewis, 69.
6. NIV, Ephesians 6:11-12.