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Technotopia

by Andrew Kimbrell

We are increasingly barraged with disturbing high-tech headlines:
 Medical team announces plan to clone humans
 Nano-robots learn to replicate themselves
 US firms seek patents on human genetic code
 Research mice ?humanized? with fetal organ transplants
 MIT scientists attempt to download human brain into computers
 Up to 5 million children on new generation
 of psychotropic medication

We are inundated with stories about biotechnology, nanotechnology, advanced computerization, artificial intelligence (AI), robotics, cutting-edge pharmaceuticals, and myriad other ?new? technologies. Predictably, the media stories have corporations and researchers heralding these new technologies as the dawn of a coming utopia of health and wealth, and yes, perhaps even immortality itself.

The critics, however, warn of dire risks to the environment and the rending of our social fabric.

What does this all mean? Are the ?new? technologies more hype than help, more science fiction than fact? Are we on the verge of utopia or *Brave New World*? Answers to the urgent questions about the future of genetic engineering, nanotechnology, AI, and other new technologies can only be found in the context of a review of the past relationship between humans and technology.

Over the past century, we have witnessed technology slowly becoming an omnipresent reality for our society, permeating the vast majority of our public and private lives. Our homes, workplaces, transportation, food, energy, entertainment, leisure, education, and government have all become integral elements of the technological grid.

If we tally the time spent in cars, office cubicles, in front of televisions or computers, using telephones, Palm Pilots, and all our other gadgets, it is clear that we spend the vast majority of our waking hours with technology and working for the technocratic organizations (corporations and bureaucracies) required to run the vast technological system in which we live. Each of us, more and more, lives in a kind of technological cocoon where much of our action and communication is mediated through machines or technocratic institutions.

While our earliest ancestors lived fully in the natural milieu, and our most recent forebears in a more social milieu, modern man now lives primarily in what sociologist Jacques Ellul called a technological milieu. For us it is the technosphere, not nature or even other people, that is the source of our livelihood, food, energy, education, entertainment, and vision of progress.

For some at least, the substitution of technology for natural and social environments represents an immense improvement for humankind. Author and engineer Samuel Florman writes, ?I can see no evidence that frequent contact with nature is essential to human well-being.? He goes on to say that technology has saved us from the ?callous brutality, the unbelievable pain, the ever present threat of untimely death for oneself (and worse one?s children) which were the natural realities with which our ancestors lived.?

The respected scholar O. B. Hardison has waxed even more fervent over the utopian possibilities. He notes that accepting the modern world ?involves faith in silicone devices that is analogous to religious faiths.? Once technology frees us from our ?carbon prison? and turns us into silicon beings, he predicts, we will be godlike: ?Silicon life will be immortal. The farthest reaches of space will be accessible to it.?

Techno-utopia

As the techno-utopian vision becomes ever more futuristic and paradisiacal, serious problems are developing in the more mundane techno-life on Earth. Though it may have freed us from certain past terrors, the technological takeover

has spawned unprecedented horrors of its own.

Our nuclear technology has put all of humanity, and the Earth itself, on a computer tripline to Armageddon. And our industrial technology has brought humanity face to face with the first truly global environmental crisis in recorded history. Over the last two decades the public has been jolted by revelations about the impacts of technology on the biosphere?global warming, ozone depletions, species extinction, deforestation, desertification.

Moreover, even as the technosphere exploits and destroys the natural world, its inhuman pace exhausts our emotional and spiritual resources. This has led to an unprecedented shattering of our communities, families, and psychological well-being.

The crisis over the technosphere?s destruction of the natural and social milieus has created an historic dilemma. Our society and much of the world?s population has become fully dependent on, and deeply addicted to, the technological environment. Yet this technological milieu is threatening the very viability of life on Earth?not to mention our own sanity. It is becoming increasingly clear that we cannot survive with our technology, yet we can?t imagine living without it.

In the early 1970s some saw this dilemma emerging. Led by prophets like E. F. Schumacher, they began developing technologies that are compatible with the natural world, sustainable communities, and the human spirit.

A small but persistent movement began urging the substitution of appropriate technologies for the mega-technological system that was rapidly decimating creation. We dreamed of a time of elegant technologies that would allow us to spend our time doing ?good work? in harmony with nature, rather than subjecting ourselves to daily degradation as cogs in the technological machine. We imagined a time when our work would be true callings engaging us in healing relationships with creation and one another, allowing us full expression of our faith in a higher good, and deepening our capacity for holistic understanding.

What we did not foresee was that the technological elite had a very different solution to the inevitable and looming technological crisis. Corporations, academics, and researchers came to realize, albeit slowly, that current technology is not compatible with life, that the contradictions between the technosphere and the survival of nature and society were ever heightening. They, too, saw that a solution was urgently needed.

To deal with this historic dilemma, the techno-utopians and their corporate sponsors outlined a breathtaking initiative. This initiative, however, was not to change technology so that it better fit the needs of living things, as we were so eagerly advocating. No, they had, and have, a very different and stunningly self-serving approach. They decided to engineer life, indeed reality itself, so that it better fit the technological system.

It is in this chilling context that the enormous significance of the current revolutions in technology can be fully appreciated. Here we have the key to the otherwise bewildering high-tech headlines and to much of our social malaise.

If we despair because our lives have become little more than a frenzy of meaningless ?multi-tasking,? their solution is to change us so we conform with the dehumanizing technological system, rather than change the process so that it responds to human needs.

Appropriate technology derailed

So change us they have. In the US alone, over 50 million of us are on psychotropic medication, various mind-changing drugs, to get through the work day. About the same number of us are on medication to try and get through the night. And 5 million of our kids are on mind-altering pharmaceuticals to get through the school day. Not to worry if the medication is required at ever higher doses or stops working altogether, or if you?ve chosen instead alcohol or illegal drug addiction; the genetic engineers promise us that genes for depression, anxiety, alcoholism, and even shyness will soon be found and removed.

We have already substituted ?virtual communities? for the relationships, kinship, and neighborhoods lost in our full-time devotion to technology. Numerous computer scientists ultimately plan to make us all ?virtual? by downloading us into silicon chips, making us ?one? with our computerized office machinery. It is the final solution to the technological dilemma. We can preserve our dehumanized production system by fundamentally changing who we are, by becoming technology ourselves.

As we become more efficient human resources for the system, we need not fear the loss of our natural resources. The nanotechnologists promise to rebuild the world molecule by molecule so it can be more efficiently utilized by the technosphere.

Global warming is also conquerable. Plants are being genetically engineered to resist droughts and radical weather conditions; ultimately all of life from microbe to man can be engineered to fit the new environmental realities generated by techno-pollution. The cruelties of 'factory' farming can be overcome not by more humane systems of animal husbandry, but by changing the basic nature of animals. Purdue University researchers recently succeeded in removing the 'mothering instinct' gene from laying hens so they could be more efficient egg laying 'machines.'

The technosphere, then, is not merely exploiting and wasting the natural and social milieus. It is fundamentally remaking nature and human in technology's image. Life and reality itself are being absorbed into the technosphere and being reduced to mere components in the system.

With this new initiative comes a profound change in our worldview. As Thomas Berry says, 'nature [and one could add humans] have been transformed from a community of subjects to a collection of objects.' All of the created order is now seen as mere manufactures: collections of molecular or genetic information that can be mixed, matched, and recombined so that they may better serve the needs of the technological system. It is appalling, but within this context not surprising, that for the last 20 years (via a one-vote Supreme Court margin in 1980) the US has allowed the patenting of life, defining all living forms as 'machines or manufactures,' under Section 101 of the Patent Act.

It is axiomatic in much psychotherapy that there can be no healing without relationship. Through our technology and technocracies we have horribly wounded much of the natural world, our human and nonhuman communities, and our very psyches. We cannot heal these wounds without reestablishing a deep participation with creation, community, and our spiritual life. However, unless halted, the technological takeover of life will forever bar this critical rapprochement, permanently closing off the urgently needed healing process. For with the success of the new technologies or even with their more likely disastrous failure, nature and humanity as we have known them will cease to exist.

Currently ensconced in our technological cocoons, many of us have become 'autistic' to the ongoing destruction of creation and even the banalization of our own souls. This autism ensures that we will stand by and passively allow the massive and terrible experiment of the technifying of life.

This simply cannot continue. By personal and collective acts of will and imagination we must reassert control over technology. We must break our addiction to the technological system and free ourselves from the techno-cocoons. We must take the political, legal, and organizing steps to say no, to halt these technologies before they are fully disseminated and decimate nature.

We must also imagine an alternative future, one in which the needs of nature and society dictate what our technology will be, and not a nightmarish future where technology dictates the shape of creation and humanity. It is only through such admittedly difficult work that we can hope to heal and reestablish relationship with nature and community. Given the scope and pace of the technological takeover, the time for such action is short.

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