

New Technologies, Old Questions:  
How to Stay Human in the Post-Christian Century

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We keep hearing that developments in emerging technologies, especially nanotechnology, will lead to vast changes in the way we live - changes as dramatic as the revolution in information technology but potentially many times as significant. Even discounting the hype, there is an exponential rate of progress in research and development. Will these changes all be good? Bad? Inevitable? If we can shape the future, what choices should we make? How do we ensure that technology enables us to be human and does not de-humanize, destroying freedom, melding persons and property, and turning us into cyborgs?

The Embryo War has absorbed much of our energies since Dolly was cloned a decade ago and shortly afterwards amazing claims were made for embryonic stem cells. It serves as a bridge into the Brave New World technologies of the 21<sup>st</sup> century. Efforts to use the embryo for research will not stop, but new and wider threats to the dignity of human life are developing.

The main focus of concern lies in the potential of emerging technologies to undermine human freedom. This is not some merely theoretical consideration about what might happen many years ahead. In practical terms, a lack of policy and leadership in shaping the development of these technologies develop is already very clear. The main focus is on nanotechnology, being funded through the National Nanotechnology Initiative to around \$1.5bn a year. Nanotechnology – which refers to very small-scale engineering – is highly innovative and is leading to enormous benefits in many areas, including cancer treatments, the development of extremely strong materials, and many defense applications. But the key is this: it is vastly increasing our power over “nature:” power for good, and for ill.

When Congress passed the 21<sup>st</sup> Century Nanotechnology Research and Development Act (2003) it expressed major concern about the ethical and societal implications of the technology, especially in developing artificial intelligence (AI) and enhancing human intelligence.

These concerns have been largely ignored by the many agencies benefiting from the funding, including the lead agency, the National Science Foundation (NSF). Indeed, the

NSF has sponsored a series of conferences and books focused on “converging technologies” (nano, biotechnology, information technology, cognitive science – “NBIC”) that essentially accept the ideological framing for these technologies of the transhumanists. One senior NSF official, who has co-edited these “converging technologies” books, is a card-carrying transhumanist.

Transhumanists believe that the key value of these new technologies is to enable us to cease to be “human” and become “post-humans.” They are overjoyed that the federal government seems to have bought into their vision. Indeed, the recent report on nano from the Joint Economic Committee of Congress (JEC) buys into genius inventor Ray Kurzweil’s bizarre idea of the “singularity,” the point at which the curve of technological development becomes effectively vertical and the world changes profoundly, as something to be expected in the year 2020. The notion that this will occur within 13 years is not simply naïve, it is absurd. In the 1950s we had prophecies of nuclear-powered autos. For the JEC to list this as a likely event undermines any rational concern about the deficit or social security reform or indeed any other long-term planning issues. The key question of the 21<sup>st</sup> century will be the Brain-Machine Interface (BMI) – how we connect human and machine intelligence. Do we really want to become cyborgs – blends of man and machine?

Every technological intervention that is reflexive (focused on ourselves) and not unambiguously “therapeutic” raises a basic principle. In his famous essay memorably titled “The Abolition of Man,” first published as far back as 1943, C. S. Lewis addresses from afar the coming challenges of reflexive, transformational technologies. His essay opens by noting the *prima facie* appeal of these new technologies with a poignant quotation from John Bunyan’s *Pilgrim’s Progress*: “It came burning hot into my mind, whatever he said and however he flattered, when he got me home to his house, he would sell me for a slave.” That, in embryo, is Lewis’ response to the prospect of human technological enhancement.

His argument opens with a consideration of the fact that technology, which is always said to extend the power of the human race, is in fact a means of extending the power of “some men over other men.” He instances the radio and the airplane as typical products of technology that like all other consumer goods can be bought by some, not afforded by others, and could be withheld by some from others who have the resources to buy. Writing four years into total war in Europe, Lewis is peculiarly aware of the capacity of these technologies to be used to subject some to the power of others, whether in the dropping of bombs or the broadcasting of propaganda. But his third example, the bridge to the potentials of the new technologies, lies in the eugenic use of contraception. Here some special features attach to the more general problems of use and abuse, since “there is a paradoxical, negative sense in which all possible future generations are the patients or subjects of a power wielded by those already alive.” In the eugenic project, “by contraception used as a means of selective breeding, they are, without their concurring voice, made to be what one generation, for its own reasons, may choose to prefer.” In light of the pervasive influence of eugenic thinking and practice, in the United States and the United Kingdom as well as Germany, in which enforced sterilization was widely

employed for selective breeding purposes, Lewis is building his argument on the technology of the early 20<sup>th</sup> century even as he anticipates that of the 21<sup>st</sup>.

As a result, he continues, “From this point of view, what we call Man’s power over Nature turns out to be a power exercised by some men over other men with Nature as its instrument.” He hastens to add that while it can be easily said that “men have hitherto used badly, and against their fellows, the powers that science has given them,” that is not his point. He is not addressing “particular corruptions and abuses which an increase of moral virtue would cure,” but rather “what the thing called ‘Man’s power over Nature’ must always and essentially be.” For “all long-term exercises of power, especially in breeding, must mean the power of earlier generations over later ones.”

In the nature of the case, the genetic accounting is of an even higher level of significance than economic relationships run through time, although the principle of inter-generational economics is the same: the impact of one generation’s decisions on subsequent generations. So Lewis states: “We must picture the race extended through time from the date of its emergence to that of its extinction. Each generation exercises power over its successors: and each, in so far as it modifies the environment bequeathed to it and rebels against tradition, resists and limits the power of its predecessors.” There can be no actual net “increase” in power on Man’s side. Each new power won *by* man is a power *over* man as well. Each advance leaves him weaker as well as stronger. In every victory, besides the general who triumphs, he is a prisoner who follows the triumphal car. . . . *Human* nature will be the last part of Nature to surrender to Man. The battle will then be won. We shall have ‘taken the thread of life out of the hand of Clotho’ and be henceforth free to make our species whatever we wish it to be. The battle will indeed be won. But who, precisely, will have won it?

Because “the power of Man to make himself what he pleases means, as we have seen, the power of some men to make other men what *they* please. . . . Man’s final conquest has proved to be the abolition of Man.” While much of Lewis’ analysis is directed at the possibility of inheritable genetic interventions, his thesis is of general application to the dynamic relation between technology and human nature. And his key perception is that the employment of radical manipulative powers upon our own selves, the seeming triumph of technological ingenuity, entails in truth the turning of human nature into one more manufacture, another artifact of human design.

While therefore the therapy/enhancement distinction is problematic, the line to which it draws attention – between the medical model and the manufacturing model - is central to distinguishing humane technological interventions from the ultimately inhumane, in which the human analogy is dislodged and the transformative potential of technology results in the fundamental reshaping of the human condition, which thereby loses its given-ness and begins a fateful move into the category of our projects; subject to what has been called the “degradation of the designed.”

Reading:

Charles W. Colson and Nigel M. de S. Cameron, ed. Human Dignity in the Biotech Century (InterVarsity Press)

Joni Eareckson Tada and Nigel M. de S. Cameron, How to be a Christian in a Brave New World (Zondervan)

Nigel M. de S. Cameron and M Ellen Mitchell, ed., Nanoscale: Issues and Perspectives for the Nano Century (John Wiley, August 2007)

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