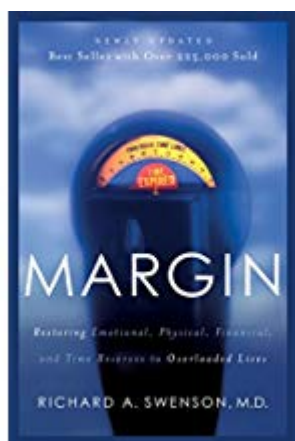# Margin: Space Between Ourselves and Our Limits

*Margin is "The space that once existed between ourselves and our limits." When we reach the limits of our resources and abilities, we are out of margin. Former Probe staffer Lou Whitworth reviews a very important book by Dr. Richard Swenson,* Margin: How to Create the Emotional, Physical, Financial, and Time Reserves You Need.

## The Problem with Progress

Until very recently most Americans had a blind faith in progress; we acknowledged that modern life brought problems but considered that such were inevitable and could be dealt with and eventually overcome. Over the past few years, however, discerning people have begun to ask, "What went wrong? With all the advancements we have made, life should be better. Instead, many aspects of our lives are worse than they were just a few years ago. What happened?"

In this article we are looking at a very important book by Richard A. Swenson, a medical doctor. The book is *Margin: How to Create the Emotional, Physical, Financial, and Time Reserves You Need*. Dr. Swenson's thesis is that though scientific progress benefits us in numerous ways, it also brings with it inevitable pains that must be ruthlessly resisted if one is to live a balanced life, and especially a life that reflects Christian values/virtues.

Margin is "the space that once existed between ourselves and

our limits." When we reach the limits of our resources and abilities, we are out of margin. Progress, contrary to our expectations, is like Pacman; it incessantly eats up margin. Progress and margin are often opposing forces.

The author recognizes the pains of the past and acknowledges that life for previous generations was no picnic. Nevertheless, he amply illustrates the staggering number of challenges facing contemporary mankind, challenges that have no precedent in human history. The pace of modern life has been steamrolled by progress.

Many have resisted the notion that life in the waning years of the 20th century was unusually painful and stressful. After all, didn't our history teach us of those intrepid men and women who crossed oceans and braved the harsh winters of the new world to have personal and religious freedom? Shouldn't we be ashamed to complain about the stress in our lives when brave pioneer men, and their even braver wives, piled their children and all their belongings into covered wagons and headed west across unknown and unforgiving lands surrounded by potentially hostile Indians? Did not our fathers win World War II? After 50 years of strife and struggle and staring eyeball to eyeball with Russia, didn't America finally face down the threat of world dominion by implacable, godless communism? Where then do we get off saying that life today is hard and stressful?

As Swenson clearly points out, without minimizing the horrors of the past, modern progress brings problems never before faced by mankind. Some of our problems are very different from those of the past perhaps, but they are real, formidable problems just the same. For example, a partial list of problems would include the speed of travel, the power of computers, levels of litigation, pervasiveness of the media, specialization, business layoffs, indebtedness, vulnerability to terrorism, spiraling medical costs, AIDS, numbers of teen mothers and illegitimate births, aging population, overcrowded

prisons, environmental pollution, overcrowding, traffic congestion, prevalence of divorce, disintegration of the family, drugs, prevalence of sexual diseases, complexity at all levels, and on and on the list could go. Never before have we had to face problems of this — and certainly we have never before had to face them all at the same time.

As Swenson writes, "Each item has played a significant role in making our era different from all those that preceded it. And when we factor in the interrelatedness of issues, the dimensions involved, and the speed of change, then unprecedented become too mild a word."

## The Pain of Life Without Boundaries

In his book *Margin*, Dr. Swenson says that our problems have no precedent because of the rate of change. In the past we faced a slightly upward pattern of linear change; now we are looking at a skyrocketing pattern of exponential change in practically every area of life. Yet most of us still think and live with a linear mind-set. Suddenly we are encountering limits in our time, energy, health, finances, ability to concentrate, to care, to even feel. Minds, bodies, systems, plans that were adequate on a linear timescale may self-destruct at warp speed. We are perilously close to burnout. We hope beyond hope that things will level out and slow down, but even if that happens, much that makes life worthwhile and manageable will be destroyed in the meantime.

Examples abound of life without natural boundaries. Once it was a given that the night was for sleeping, and the day was for work. Now a hundred years after the electric light bulb, whole cities never sleep. Sunday was once a day of rest; nearly everyone had one day off from work. Now the boundaries between work and play and home and the office are so confused some people can never relax or let down. A few years back we might have known someone who had borne a child out of wedlock,

been divorced, had emotional problems, or gone bankrupt, but today we are in an epidemic of such problems.

Swenson asks, "Is there a critical mass of problems beyond which a society—or, for that matter, an individual—will be destroyed no matter how wonderful the benefits it enjoys? If so, what is that critical mass? Are we approaching it? Have we reached it?" He answers, Yes, there is a point of critical mass; what that point is we don't know, but clearly we are approaching it. He says it remains to be seem whether we have already reached it. As George Gallup wrote, "I've come to feel a deep sense of urgency about the Future Forces at work today. . . . If swift, forceful steps aren't taken to defuse the political and social time bombs facing us, we may well find ourselves on a track that could lead to the destruction of civilization as we know it."

It is critical to note here that progress has brought man much power— power that can be used for good or for evil. The sobering truth, then, is that the power to do evil advances exponentially, and modern secular man is not known for restraint nor does he recognize his fallenness and the danger it holds for himself and all humanity.

We have benefited from progress in two main areas. First, we have seen positive gains in medicine, technology, and in our standard of living and material well being. Second, our intellectual and educational opportunities have expanded enormously, and knowledge and information are increasing with unimagined speed.

The pain that progress has brought us is evident in three areas. First, we have lost ground in the social sphere as pressures have increased on all relationships: family, friendships, neighborhoods, community spirit, and church life. Second, we are often emotionally drained, stressed, angry, isolated, and frequently unfulfilled and don't know what to do about these problems. Third, we are spiritually weakened by

the pace of life, the lack of community, lack of time and energy to cultivate our relationship with God and with our fellow man. This, Dr. Swenson says, is the price we have paid for progress.

## The Problem of Stress

Because of the unprecedented level of problems today people live with very high levels of stress. Stress is "the nonspecific response of the body to any demand made upon it." Note that stress is not the circumstance but the response to the circumstance.

We normally think of such a crisis as the "fight or flight" reaction which pumps adrenaline into our system, makes us stronger and more alert, etc. If these responses are occasional there is little harm done, but if triggered too often or if "stuck" in a constant state of anger, rage, anxiety, fear, or frustration, we begin to overdose on our own adrenaline. This can bring about irreversible damage to the body and set it up for heart attack, stroke, cancer, etc.

Our stress levels are unprecedented. One reason is that most of us today experience constant mental strain without the offsetting benefits of strenuous physical work. When, for example, the commercial property deal we've worked on for months falls through, or the accounts don't balance, or the computer just won't cooperate, there is no place to run and no one to hit. We just have to try again. The physical laborer, even if he has some mental strain, still has the labor to drain off his adrenaline, and he usually has the ability to think about other things occasionally as he works.

Closely related to stress is overload; in fact, overload is a primary cause of stress. Our culture adds detail on top of detail; one more choice, one more option, one more change, and the details never end. "We must now deal with more 'things per person' than at any other time in history. Yet one can

comfortably handle only so many details in his or her life. Exceeding this threshold will result in disorganization or frustration. . . . The problem is not in the 'details.' The problem is in the 'exceeding.' This is called overloading."

The facts are that there are physical limits and man has performance limits, emotional limits, and mental limits. The work load a twenty-five year old athletic, single man can carry may differ greatly from the load a fifty-five year old man can carry if the latter has two teenage children and two children in college, dependent parents, and a wife in menopause. When such overload occurs, the person may experience anxiety, have a physical or nervous breakdown, exhibit hostility, slip into depression, or become bitter and resentful.

We are overloaded with activities, change, choices, commitments, competition, debt, decisions, education, expectations, fatigue, hurry, information, media, ministry, noise, people, pollution, possessions, problems, technology, traffic, waste, and work.

So why do we overload? First, we are usually unaware of our overload until it's too late. Second, some people are too conscientious. Third, others get overloaded because their bosses are driven people who overload their employees. Generally people don't intend to go down the path to overload; they just think that "one more thing won't hurt." But if they are at or near overload, it will hurt.

As the author says, learning "to accept the finality and non-negotiability of the twenty-four hour day" will help us avoid overload and excessive stress.

## Building Margin into our Lives

Of all the areas in which we need margin, having adequate emotional energy is the most important because with emotional

margin one can work to gain the other margins.

The amount of emotional energy we have is finite and must not be squandered. Though it is difficult to measure and quantify we must not be embarrassed to admit to ourselves or to others when our emotional reservoir is low. Then we need to replenish our emotional reserves for the good of others and ourselves.

Restoring emotional margin is aided by cultivating our social and family support network. Serving others or doing volunteer work is proven to enhance and lengthen life. Extending forgiveness and reconciling relationships can stop the negative drain on our emotional stores. Cultivating a spirit of gratitude, a hopeful outlook, and love for God and our fellow human beings is energizing, whereas their opposites are negative and debilitating. Finally, establishing appropriate limits and boundaries will help in maintaining emotional reserves.

Dr. Swenson's recommendations for gaining a margin in physical energy are fairly routine to the knowledgeable reader, but he puts particular stress on the need for the need for rest and sleep. The need for correction is clear since America has now become a 24-hour society: many of our cities never sleep and many businesses never close. People of all types, college students, policemen, nurses, taxi drivers, shift workers, and mothers of young children, may go long periods without a good night's sleep. Such people push (or are pushed) to their limits during the day and push on into or through the night. Sleep disorders plague more than 50 million of us; in fact, sleep deprivation "has become one of the most pervasive problems facing the U.S." Unfortunately the ability to go without sleep is sometimes a matter of pride for some, but sleep and rest are God's ideas, and we should not be ashamed of our need for both. The author gives several helpful suggestions on making sleep more natural and effective.

Dr. Swenson strongly stresses the need for all types of

physical exercise, but says that aerobic exercise for the heart "will do more to establish margin in physical energy" than anything else. He endorses exercise not only for its physical benefits but also for its emotional and mental benefits.

When the subject turns to time the author writes, "The spontaneous flow of progress is to consume more of our time, not less . . . to consume more of our margin, not less." He adds that for "every hour progress saves by organizing and technologizing our time, it consumes two more hours through the consequences, direct or indirect, of this activity."

Clearly time becomes a problem for a society like ours. Some the author's suggestions for countering the time crunch are countercultural and tough to implement, but then continuing on in the same direction most of us are going is difficult as well. He suggests practicing saying "No," turning off the television, practicing simplicity, and getting less done but doing the right things. Many of us need to make some thoughtful and hard choices.

The author's suggestions for gaining a margin in time are preceded with a reminder that of the ten top stressors of family life, four have to do with insufficient time: insufficient couple time, "me" time, family play time, and overscheduled family calendars.

Why do we need to prune our time wasters? Because time is for people and relationships, subjects very dear to God.

## A Plan of Action

There are many ways we can spend our time. We could follow the "Excellence" gurus and pour all our energy into one part of our lives. We would probably have no extra margin since other parts of our lives had been sacrificed and in a condition of "negative excellence."

At some point, all things being equal, we would become quite accomplished in a given area. The end result, however, might be similar to having one magnificently developed right arm attached to puny, stooped shoulders, a scrawny left arm, and skinny, weak legs. This is like the person who is a powerhouse in his professional life and a dwarf in his relationships.

Dr. Richard Swenson suggests a different way in his book *Margin*. He suggests an approach to life that neglects no important area. He suggests being willing to sacrifice excellence in one or two areas in order that no area be in a condition of negative excellence. This would be similar to the athlete who is toned and conditioned all over, but not overly developed in any one area.

A similar balance in our lives will increase our emotional margin because we and and our families will be happier.

Simplicity has much to offer harried twentieth-century man. But it isn't easy. It takes effort to discard the superfluous and concentrate on the core elements of life. There has always been an attraction to simplicity; the difficulty has been in achieving it. The simple life the author calls us to is not so much to escape modern life as to transcend it.

Envy is the enemy of contentment and form of self-inflicted torture. Yet because envy is the chief ingredient of advertising and the mainspring of political and social movements, it is difficult for many to see its destructiveness. We need to follow Paul who learned contentment in whatever circumstance he found himself (Phil. 4:11-12; 1 Tim. 6:6-10). The practice of contentment brings margin into our lives.

The pain that progress has brought us is mostly in the area of our emotions, our relationships, and our spiritual natures. What are some additional steps start dealing with the pain and achieving some margin?

First, thank God for the pain. The pain pointed out that something is wrong. Second, repent in a way that leads to permanent, tangible change. Third, prune activities and habits that waste time, sap energy, and stifle relationships. Fourth, cooperate with God. Bathe plans in prayer and leave wiggle room for yourself, your family, and people God may send your way.

- How did we relate to God?
- How did we relate to ourselves?
- How did we relate to others?

The road to health and blessing in the path of relationship. Love and relationships are hard work, and sometimes costly because superfluous, unimportant things may need to be put aside, but the payoff is happiness, contentment, peace, and margin. I hope some of the things we have shared in this article turn you from the path of overload and start you down the path of margin.

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# Into the Void: The Coming Transhuman Transformation

In the TV show *The Six Million Dollar Man*, Lee Majors played Steven Austin, a crippled astronaut who was rehabilitated through bionic technology that gave him superhuman strength and powers. The show, like so much science fiction, presents us with the dream that technology will enhance all our facilities from sight to memory, hearing to strength, and lengthen our life span to boot. The bionic man represents a fictional forerunner of the transhuman transformation. The

Transhumanist school believes that technology will not only enhance the human condition, but eventually conquer death and grant us immortality. Human enhancement technology performs wonders in allowing the lame to walk, the blind to see, the deaf to hear and the sick to be well, but even immortality is out of the reach of technology. In striving to enhance our physical existence we may lose our souls in the process.

In his famous book, *The Abolition of Man* published in the 1940s, C. S. Lewis wrote that modern society is one step away from "the void"[1]–"post–humanity,"[2] a state of existence from which there will be no return. Lewis argues that when we step outside of what he calls the Tao[3], we lose all sense of value for human life that has always governed civilization. What Lewis calls the Tao, we might call Natural Law or Traditional Morality—that internal moral understanding of right and wrong which God has written on the hearts of all people (Romans 2), the *Logos* by which all things were created (John 1, see especially verse 4).[4]

In leaving traditional spiritual values behind, Lewis argues, modern technological civilization has reduced human value to only what is natural, and we have lost our spiritual quality. Modern society has striven to conquer nature and largely succeeded, but at a great cost—with each new conquest, more losses in human dignity, more of the human spark extinguished. Lewis offers the example of eugenics from his time in the 1930's and 40's.[5] Eugenics is now a debunked science of racial manipulation and something we know was practiced with particular ferocity in Nazi Germany.[6] But the driving philosophy of manipulating nature and humanity into something new and final remains prominent. Lewis underestimated the truth of his own prophecy. He thought that maybe in 10,000 years the final leap will be taken when mankind will solidify itself into some kind of inert power structure dominated by science and technology.[7]

However, the 21st century may prove to be the era of

posthumanity that Lewis foresaw in his time. The current movement of transhumanism, or human enhancement, asserts that humanity will eventually achieve a new form as a species through its adaption to modern computer technology and genetic engineering in order to reach a higher evolutionary condition. Our present state is not final. Transhumanism derives from Darwinian doctrine regarding the evolution of our species. Evolutionary forces demand that a species adapt to its environment or become extinct. On this view, many species experience a pseudo—extinction in which their adaptation gives way to another kind of species leaving its old form behind. Many evolutionists believe this happened to the dinosaurs on their way to becoming modern birds and that humanity faces the same transformation on its way up a higher evolutionary path.[{8}] Primates evolved into humans so humans will eventually evolve into something higher (posthuman).

## Metaman

Our present condition will give way to the cyborg (which is short for cybernetic organism) as we join our bodies and minds to technological progress. Transhumanists believe that because Artificial Intelligence (computing power) advances at such a rapid pace, it will eventually exceed human intelligence and humanity will need to employ genetic engineering to modify our bodies to keep pace or become extinct. Therefore, the cyborg condition represents humanity's inevitable destiny.

The two predominant pillars in transhumanism revolve around Artificial Intelligence (AI) and genetic engineering. One represents a biological change through manipulating genes. The other presents the merging of human intelligence with AI. The biological position (through use of genetic engineering) claims that through transference of genes between species, we eradicate the differences and create a global superorganism that encompasses both kinds of life—the natural and the artificial. Biophysicist Gregory Stock states that once

humanity begins to tamper with its genetic code, and the codes of all other plants and animal species, that "the definition of 'human' begins to drift."{9} Through genetic engineering we will transform the human condition by merging humanity with the rest of nature, thereby creating a planetary superorganism. A superorganism operates like a bee hive or an anthill as a collection of individual organisms united as a living creature. Stock calls this Metaman, the joining of all biological creatures with machines, making one giant planetary life form. This superorganism encompasses the entire globe.

Transhumanism presupposes that no distinction exists between humanity, nature or machines. Metaman includes humanity, all it creates, and also the natural world. It acknowledges humanity's key role in the creation of farms and cities, but includes all natural elements, such as forests, jungles and weather. Metaman includes humanity and goes beyond it.{10} Stock envisions a greater role for genetic engineering in redefining biological life as different species are crossed. Humanity may now control the direction of its evolution and that of the entire planet.

Stock states that through "conscious design" humanity has replaced the evolutionary process.{11} This leads us to Post—Darwinism where people have supplanted the natural order with their own technological modification of humanity and the entire ecological system. "Life, having evolved a being that internalizes the process of natural selection, has finally transcended that process."{12} Humanity may now, through the agency of technological progress, seize direction of its development and guide it to wherever it wants itself to go. No other species has ever controlled its own destiny as we do.

## The Singularity

A second transhumanist belief argues for the arrival of an eventual technological threshold that will be reached through the advancement of Artificial Intelligence. The argument goes

like this: because AI develops at a rapid pace it will achieve equality with the human brain and eventually surpass it. Estimates as to when this will happen range from the 2020's to 2045. The evolutionary process will reach a crescendo sometime in the 21st century in an event transhumanists call "the Singularity."{13} There will be a sudden transformation of consciousness and loss of all distinction, or Singularity, between humanity and its creations, or the absence of boundaries between the natural and artificial world. Singularity watchers expect that this event will mark the ultimate merging of humans and machines. Renowned inventor and AI prophet Ray Kurzweil states, "The Singularity will allow us to transcend these limitations of our biological bodies and brains. . . . There will be no distinction, post–Singularity, between human and machine. . . ."{14}As the fictional CEO and mastermind behind a cutting edge AI company in the year 2088 crowed, "My goal is for us to end death as we know it on earth within 50 years—for the essence of every person to live perpetually in an uploaded state. . . . The transhuman age has dawned."{15}

Both of these positions, one emanating from genetic engineering that seeks to enhance the body, the other from Artificial Intelligence that seeks to supersede and even supplant the need for bodies, argue for the eventual replacement of humanity with biological–machine hybrids. Metaman and Singularity systems are direct heirs of the modern idea of progress. They present the dawning of a technological Millennium, but they also share a long history dating back into medieval Christendom. In the early Church, technology, or the "mechanical arts," was never considered as a means to salvation or Edenic restoration. Historian David Noble argues that from Charlemagne to the early Early Modern period technology became associated with transcendence as the means of restoring the lost divine image or *imago dei*.{16}

Theologian Ernst Benz argues similarly that the Modern

technological project was founded on a theological notion in which humanity believed itself to be the fellow worker with God in establishing His kingdom on earth through reversing the effects of the Fall.{17} We are fellow workers with God; however, this position overemphasized humanity's role in restoration to the point of becoming a works–based salvation of creation.

Despite the apparent secularity of the super science behind all the technological wonders of our time, the notions of modern progress and transhumanism remain grounded in an aberrant form of Christian theology. Noble summarizes this well when he states, "For modern technology and modern faith are neither complements nor opposites, nor do they represent succeeding stages of human development. They are merged, and always have been, the technological enterprise being, at the same time, an essentially religious endeavor."{18} The theology behind Modern technological progress remains rooted in Medieval and Early Modern notions of earthly redemption when the "useful arts,"{19} which ranged anywhere from improved agricultural methods to windmills, were invested with redemptive qualities and humanity began to assume an elevated status over nature. "In theological terms, this exalted stance vis-à-vis nature represented a forceful reassertion of an early core Christian belief in the possibility of mankind's recovery of its original God–likeness, the 'image–likeness of man to God' from Genesis (1:26), which had been impaired by sin and forfeited with the Fall."{20} Technology becomes the means of restoring the original divine image. Technological development was expected to reverse the effects of the Fall and restore original perfection. This theology also serves as the impetus behind Millennial thought which believes technology helps humanity recover from the Fall and leads to an earthly paradise. Transhumanism extends this Millennial belief into the twenty–first century.

# Redeeming Technology

We are faced with the problem of how to redeem all the advances of technology such as human enhancement without losing ourselves in the process. Idolatry preoccupies our central concern with technology. Biblically speaking, idolatry exalts the work of humanity, including individual human beings, over God; we commit idolatry when we serve the creature rather than the Creator. "Professing to be wise, [we] became fools, and exchanged the glory of the incorruptible God for an image in the form of corruptible man and of birds and four-footed animals and crawling creatures" (Rom. 1:22-23). Theologian Paul Tillich offers a keen and insightful definition of idolatry when he states, "Idolatry is the elevation of a preliminary concern to ultimacy. Something essentially partial is boosted into universality, and something essentially finite is given infinite existence."{21} Transhumanism presents us with a spiritualization of technology believed to grant us immortality through shedding our bodies and adopting machine ones or through genetic engineering that will prolong bodily life indefinitely. Our Modern age defines technology as a source of material redemption by placing finite technical means into a divine position, thus committing idolatry.

In seeking to reconcile technology with a biblical theology we have three possible approaches. *Technophobia* represents the first position. This view contends that we should fear technological innovation and attempt to destroy it. The Unabomber Manifesto offers the most radical, pessimistic and violent expression of this position, arguing for a violent attack against the elites of technological civilization such as computer scientists in an effort to return society to primitive and natural conditions in hopes of escaping the kind of future transhumanists expect.{22} However, the entire tenor of our times moves in the opposite direction, that of *technophilism*, or the inordinate love for technology.

Transhumanism optimistically believes that through technological innovation we will restore our God-like image. A third position asserts a mediating role between over-zealous optimism and radical morose pessimism. [23]

## Technocriticism

*Technocriticism* offers the only viable theological position. By understanding technology as a modern form of idolatry we are able to place it in a proper perspective. Technocriticism does not accept the advances of innovation and all the benefits new technology offers without critical dialogue and reflection. Technocriticism warns us that with every new invention a price must be paid. Progress is not free. With the invention of the automobile came air pollution, traffic and accidents. Computers make data more accessible, but we also suffer from information overload and a free-flow of harmful material. Cell phones enhance communication, but also operate as an electric leash, making inaccessibility virtually impossible. Examples of the negative effects of any technology can be multiplied if we cared enough to think through all the implications of progress. Technocriticism does not allow us the luxury of remaining blissfully unaware of the possible negative consequences and limitations of new inventions. This approach is essential because it demonstrates the fallibility of all technological progress and removes its divine status.

Technocriticism humanizes technology. We assert nothing more than the idea that technology expresses human nature. Technology is us! Technology suffers the same faults and failures that plague human nature. Technology is not a means of restoring our lost divine image or reasserting our rightful place over nature. This amounts to a works-based salvation and leads to dangerous utopian and millennial delusions that amount to one group imposing its grandiose vision of the perfect society on the rest. Such ideologies include Marxism, Technological Utopianism and now Transhumanism. We are

restored to the divine "image of His Son" by grace through faith alone (Rom. 8:29). Technology, serving as an extension of ourselves, means that what we create will bear our likeness, both as the image-bearers of God and in sinful human identity. It contains both positive and negative consequences that only patient wisdom can sort through.

Through criticism we limit the hold technology has on our minds and free ourselves from its demands. We use technology but do not ascribe salvific powers of redemption to it. A critical approach becomes even more crucial the further we advance in the fields of genetic engineering and AI. We do not know where these fields will lead and an uncritical approach that accepts them simply because it is possible to do so appears dangerous. We live under the delusion that technology frees us, but as Lewis warns, "At the moment, then, of Man's victory over Nature, we find the whole human race subjected to some individual men, and those individuals subjected to that in themselves which is purely 'natural'—to their irrational impulses."[24] The famous science-fiction writer Frank Herbert echoes Lewis's sentiments in his epic novel *Dune*: "Once men turned their thinking over to machines in the hope that this would set them free. But that only permitted other men with machines to enslave them."[25] Genetic engineering or merging humanity with AI only exchanges one condition for another. We will not reach the glorified condition transhumanists anticipate. A responsible critical approach will ask, Into whose image are we transforming?

**Notes**

1. C. S. Lewis, *The Abolition of Man* (New York: Macmillan, 1947), 77.
2. Ibid., 86.
3. Lewis, of course, did not originate this ancient Chinese concept but rather applied it to universally accessible principles.
4. Ibid., 56.

5. Ibid., 72

6. See *Darwin's Racists: Yesterday, Today and Tomorrow* by Sharon Sebastian and Raymond G. Bohlin, Ph.D. Though the German Nazis acted out this hideous ideology to an extreme, eugenics was actually first promulgated in the United States, Germany and Scandinavia around the turn of the 20th Century.

7. Lewis, *The Abolition of Man*, 71.

8. See Dr. Ray Bohlin's article PBS Evolution Series, especially the section entitled "'Great Transformations' and 'Extinction'."

9. Gregory Stock, *Metaman: The Merging of Humans and Machines into a Global Superorganism* (New York: Simon and Schuster, 1993), 165.

10. Ibid., 20.

11. Ibid., 228.

12. Ibid., 231.

13. Ray Kurzweil, *The Singularity is Near* (New York: Penguin, 2005).

14. Ibid., 9.

15. David Gregory, *The Last Christian*, (Colorado Springs: Waterbrook Press, 2010), 102.

16. David F. Noble, *The Religion of Technology* (New York: Knopf, 1997), 9.

17. Ernst Benz, *Evolution and Christian Hope: Man's Concept of the Future from Early Fathers to Teilhard de Chardin* trans., Heinz G. Frank (New York: Doubleday, 1966), 124-125.

18. Noble, *The Religion of Technology*, 4, 5.

19. Ibid.,14.

20. Ibid.

21. Paul Tillich, *Systematic Theology: Reason and Revelation Being and God*, Vol. 1 (Chicago: University of Chicago Press, 1951), 13.

22. FC, *The Unabomber Manifesto: Industrial Society and Its Future* (Berkeley, CA: Jolly Roger Press, 1995).

23. See Neil Postman, *Technopoly: The Surrender of Culture to Technology* (New York: Knopf, 1992), 5.

24. Lewis, *The Abolition of Man*, 79, 80.

25. Frank Herbert, *Dune* (New York: Ace, 1965), 11.