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### Seeing the Image of God through Technology

Sometimes it seems that science fiction will truly become an everyday reality. Space travel used to be science fiction, but we have put man in space and on the moon. Robots are an immense sci-fi creation that exist in many sci-fi novels. Usually the stereotypical robot of fiction is a metal body covered in blinking lights with mechanical gears to give it motion and life.

While robots may not exist exactly like their early conception, we do have Honda's ASIMO robot. ASIMO was created as an office and home assistant. It has the ability to sense and shift its center of gravity giving it smoothness in changing of direction and ease in traversing stairs. It also has the intelligence to interpret human body postures and gestures and respond to those gestures independently. It is able to greet approaching people, follow them, move in the direction they indicate, and even recognize a person's face and address him or her by name.

Laser technology has also leapt from science fiction to reality. While it is not used as a weapon yet, it is used from precision manufacturing to accurately guiding missiles to their targets.

And what about artificial intelligence or AI? There are many researchers who are striving to create an independent intelligent thinking machine. The closest they have come so far is complex algorithms in a program that is able to respond to questions and comments with the appearance of intelligence most of the time.

Another attention grabber in science fiction is the idea of the human cyborg. Cyborg is a coined word from the two words cybernetic organism. A cyborg is an organic creature and a machine merging to create one creature. One of the main goals in improving technology is to make the interface between the man and the machine easier and seamless. The cyborg is the pinnacle of this optimization. The interface between the brain and the machine no longer has to be manifested in physical motion, but can remain as thought commands just as one moves one's arm, leg, or fingers. The machine becomes another extension of the body. Examples of the integration of machine with the body can include neural implants that, give the brain extra information, or robotic limbs or organs that can function as well or better than the previous organic ones.

It would be beneficial to the medical industry if the industry could, in fact, create mechanical replacements for internal organs like the pancreas, or external organs like ears, or maybe even be able to give someone who lost his arm in a car accident another replacement arm that had the same functionality. All the mechanical parts are controlled by the brain, making interaction with them not much different from using one's own body. But is this right to do to a human? We may already be doing it to some extent with hearing implants and insulin regulators. Should we as humans become part machine? It could be a moral wrong to alter the body with these cybernetic creations. Can this adding of machines to our bodies make us less human? God has impressed upon human beings His own image. As Christians, "we are *not* opposed to scientific and medical progress but instead enthusiastically encourage it. We must also, however, refuse to accept the premise that whatever human beings *can* do scientifically *should* be done, especially if the identity of the human species is at stake." (Lutzer) Pastor Erwin Lutzer expressed his concern for the preserving of the image of God in man in his article

*Biotechnology's Brave New World*. He believed that “the soul and the body make up the *Imago Dei*, the image of God in human beings. The Bible nowhere tells us precisely what the image of God is; but the image clearly entails our capacity to relate to God, others, and creation as moral beings who know innately that we are accountable for our actions.

Secularists have never had a satisfactory explanation for the human soul. The reductionism of Hobbes and other materialists, for example, is wholly unsatisfactory, while the biblical data confirms human observation and experience. While there is mystery both in understanding the origin of the soul and its relationship to the body, the fact that we can't give precise answers to some questions does not mean that we must surrender Scripture's affirmation of the unique nature of humankind. Indeed, everything we know about human beings--their ability to think conceptually, their volition, and sense of responsibility--confirms the biblical data.

Regardless of the origin of the soul and its relationship to the body, each human being is unique and possesses innate human dignity. To experiment with creating a human being according to our liking is to tamper with that which is most sacred, that which is second only to God Himself. We must preserve the integrity of humanity; we dare not reconfigure human beings according to our whims and purposes.” Could turning a human into a cyborg be a defacement of the *Imago Dei*?

To grapple with this potential problem of dehumanization through modern technology, the current state and progression of cybernetic technology should be studied. A quick look at the website, “The Center for Bioethics and Human Dignity” can offer a plethora of articles written by a number of different professors who have doctorates in the fields of biology or technology. One of these professors, Dr. William Cheshire, gives insight into some of the results of

experimentation on animals. In his article, *Computer-Directed Animal Navigation Needs Ethical Compass*, Dr. Cheshire describes one experiment performed on rats where “physiologists at the State University of New York succeeded in navigating rats over complex terrains by remote control using a laptop computer from distances up to 500 meters away. The rats were equipped with tiny backpacks containing radio receivers configured with microstimulators delivering discrete electrical pulses to their brains. Implanted electrodes targeted the pulses to the cortical representations for whiskers and the part of the brain responsible for sensing reward. The researchers could thus steer the rats electronically. When a trickle of current was sent to the left whisker zone (in the right brain), the rat, thinking his left whisker had brushed up against an obstacle, would turn to the right. A trickle to the right nudged the rat left. A series of correct turns was rewarded with a pulse of euphoria in the brain's pleasure center (the medial forebrain bundle).

These guided rats far surpass the hobbling capabilities of contemporary mobile robots. Within a few sessions they were easily directed through pipes and across ledges and could be instructed to climb trees or methodically to explore large, collapsed piles of concrete rubble. Like soldiers, the rats turned instantly on cue and were marched through environments that normally they would have instinctively avoided, such as brightly lit open areas.”

Dr. Cheshire continues with his article to explain that controlling rats would allow many beneficial applications in saving human lives. The rats could be used to search rubble piles for victims trapped beneath or to uncover landmines or even to eavesdrop on enemy conversations that might threaten national security. But just as these rats can be used for good, they can also be used for evil. Terrorism would also take on a new scale with terrorist having the ability to make rats carry explosives into buildings undetected. The pros and cons should be weighed to see if it

is worth developing such technology that could bring both extremes of benefit and harm to society.

Dr. Cheshire also lays out the fact that this technology, can and probably will, be applied to more intelligent animals like household pets. Even humans are in the scope of the future of this controlling technology. The desired application for humans would be giving someone a moral boost or even pain reliever by way of neural stimulation of the pleasure part of the brain. Obviously there should be ethical discomfort at the possibility of controlling someone's mood at the push of a button. Cheshire ends his article with:

“Technology capable of navigating animals remotely by computer has crossed an unprecedented threshold in the history of science. Will humanity eventually surrender also human behavior to the guidance of the computer chip? C. S. Lewis, in *The Abolition of Man*, observed that, ‘Each new power won by man is a power over man as well.’ If Lewis was correct, then to achieve electronic control over human nature would be, little by little, circuit by circuit, to yield to what is less than human by replacing human nature with that of the machine.” (Cheshire)

This is exactly what must be considered as man continues to develop cybernetic technology.

But what about something a little more physical than electric neural pulses? What about limbs and organs? We already have some of these technologies around us. Hearing aids and hearing implants for those with hearing impairment are common. These people could be considered cyborg although they are only slightly machine. Other people with pacemakers and insulin regulators rely more on the machines inside their bodies making them more cyborg than someone with a hearing aid. Modern technology has also managed to create a machine that can take the place of the heart while doctors replace the patient's real heart. There is no dispute

whether using machines in this way is ethical. Because people would die without them, right? This is using technology to return to a state of normality, namely, a healthy life.

But what if cybernetic technology were used to go beyond a normal, healthy life? Dr. Christopher Hook asserts in his article *Cybernetics: An Uneasy Blending of People and Machines* that, “It is speculated that brain chips or implants will soon be available for use by the non-disabled as well, providing direct access to the Internet and other electronic databases. Such devices are attractive in that they would provide easy access to an incredible volume of information, allowing anyone to be an ‘expert’ in any number of areas. Financial monitoring and trading of commodities would become more instantaneous, and some have speculated that to stay competitive in the near future, businesspersons will have to ‘get connected.’”

Is such re-wiring of the brain in our best interests? Indeed, access to information might be made easier, but people will still require the skills for analyzing and sorting out vast amounts of data. It is important to recognize also that access to information does not necessarily impart wisdom in how to use that information. A myriad of questions arises: To what degree does such connectedness erode our privacy? How much of our thought processes might be read by others, especially those who would love access to our minds (e.g., merchants, the government)? Indeed, how will we be able to filter out images and instructions that we do not desire? What will be the effect of electronic viruses on our minds? How will the presence of these new connections alter our ways of thinking and thus, in essence, our very selves? Will not the temptation of living in virtual worlds be too strong for many to withstand, leading some to mental addictions (of which pornography is an obvious example)? Do we not risk the development of two classes of people: those cybernetically augmented and those who are not?” If the problem is to be tackled, a

differentiation between medicine and enhancement should be made as Dr. Edmund Pellegrino said:

“The actual and promised capabilities of biotechnology have given prominence to a possible new end of medicine, ‘enhancement.’ Almost every present-day commentator underscores the difficulties, impossibility, or futility of any definition that seeks to distinguish enhancement from therapy. Nonetheless, everyone eventually ends up using the term since no viable substitute has yet appeared. In short, no boundary between morally valid and invalid uses of biotechnology can be established without at least a working definition.”

Following Dr. Edmund Pellegrino’s line of thought, motives and intent must be called into question here. “The motives, ends, and means of enhancement as a primary intention are morally variable. Some ends—like the desire for healthy, bright, and lovable children—are understandable. If the means that bring these states about do not themselves dehumanize their subjects, they might be within the legitimate ends of medicine, particularly preventative medicine.

On the other hand, many others will focus elsewhere, e.g., on the thrills of going farther, faster, with more endurance in athletic competition. Alternatively, they might want to enjoy the adrenalin surge of seeing how far the human body and mind can be pushed. Enhancement of this kind becomes an end in itself far beyond the healing ends of medicine in any traditional sense.”  
(Pellegrino)

So, it is the intent of the person using cybernetic technology that makes it morally right or wrong. Cybernetics is not wrong in and of itself. It is the person who uses it that can turn cybernetics into something sinister. “Questions about how enhancement affects our concepts of the purposes of human life and the nature of human happiness will be buried by more immediate

demand for happiness, fulfillment, and mental tranquility. The modern and post-modern emphasis will be on effective regulatory measures, better techniques, and competent practitioners—not ethical restraint. Restraint or prohibition beyond prevention of abuses and harmful side effects is highly unlikely. Those who restrict freedom of choice will be seen as a danger to the realization of a higher quality of life for all. Any restriction will be interpreted as a violation of the physician’s obligation to respect patient autonomy.

Many of us will take these to be specious arguments, which, if accepted, would make medicine the handmaiden of biotechnology and erode its traditional role in treating the sick. Counterarguments will be difficult given the powerful vectors of change in our cultural mores. Hopes for an earthly paradise are seemingly within reach for many people who no longer believe in an after-life. For them, extracting the maximum from personal enhancement is a seductive substitute.” (Pellegrino) It is ironic that in striving for earthly utopias, people often end up with dystopias they sometimes do not even realize they regret creating.

Where should the line be drawn? We want to remain human, so how? First a definition of the *Imago Dei* is needed, for it is the image of God reflected in man that gives man his dignity and distinction over the rest of creation. Genesis 1:26-28 shows where God put man when man was created.

“Then God said, ‘Let Us make man in Our image, according to Our likeness; let them have dominion over the fish of the sea, over the birds of the air, and over the cattle, over all the earth and over every creeping thing that creeps on the earth.’

So God created man in His own image; in the image of God He created him; male and female He created them. Then God blessed them, and God said to them, ‘Be fruitful and multiply; fill the earth and subdue it; have dominion over the fish of

the sea, over the birds of the air, and over every living thing that moves on the earth.”

“To the skeptical mind, it has always seemed more than a little ludicrous that human beings, odd enough when they believe in God, go still further and profess to resemble him, to made of ‘a substance like Himself.’ [...] No one would question that the ancient gods and goddesses of Homer resemble humans; indeed, they are all too human, and that is one reason they were forsaken. But the claim in Genesis is that the mysterious One– who summoned up light in the everlasting darkness, and made the earth and sun and moon and stars, and was utterly unlike any of the members of the Olympian family–created humans ‘in His own image.’ That is, this creature that so rapidly fell from the state of grace bears in himself, in some all-important way, the likeness of the One whose name cannot even be uttered.” (Leavy, x-xi) To preserve human dignity from being disgraced by cybernetics, this image of God must be defined. Many theologians touched on different aspects of the *Imago Dei*. “Augustine found images of the Trinity in human self-consciousness and in memory, intellect, and will. Saint Bernard developed the idea mystically, saying that man bore God’s image indelibly and that he restored the divine likeness, lost by sin, as he approached contemplation.” (Murtaugh, 2) But Aquinas had the most applicable approach for defining the *Imago Dei*. Aquinas wrote in his *Summa Theologica* that “The First-Born of creatures is the perfect Image of God, reflecting perfectly that of which He is the Image, and so He is said to be the "Image," and never "to the image." But man is said to be both "image" by reason of the likeness; and "to the image" by reason of the imperfect likeness. And since the perfect likeness to God cannot be except in an identical nature, the Image of God exists in His first-born Son; as the image of the king is in his son, who is of the same nature as himself: whereas it exists in man as in an alien nature, as the image of the king is in a silver coin,

as Augustine says explains in *De decem Chordis*. While in all creatures there is some kind of likeness to God, in the rational creature alone we find a likeness of 'image' [...] in other creatures we find a likeness by way of a 'trace.' Now the intellect or mind is that whereby the rational creature excels other creatures; wherefore this image of God is not found even in the rational creature except in the mind; while in the other parts, which the rational creature may happen to possess, we find the likeness of a "trace," as in other creatures to which, in reference to such parts, the rational creature can be likened. We may easily understand the reason of this if we consider the way in which a 'trace,' and the way in which an 'image,' represents anything. An 'image' represents something by likeness in species, as we have said; while a 'trace' represents something by way of an effect, which represents the cause in such a way as not to attain to the likeness of species. For imprints which are left by the movements of animals are called 'traces': so also ashes are a trace of fire, and desolation of the land a trace of a hostile army." There is no need to consider the image of God as existing in every part of man. Man is called to the image of God; not that he is essentially an image; but that the image of God is impressed on his mind; as a coin is an image of the king, as having the image of the king. It is man alone who has the image of God and not anything else in creation because "not every likeness, not even what is copied from something else, is sufficient to make an image; for if the likeness be only generic, or existing by virtue of some common accident, this does not suffice for one thing to be the image of another. For instance, a worm, though from man it may originate, cannot be called man's image, merely because of the generic likeness. Nor, if anything is made white like something else, can we say that it is the image of that thing; for whiteness is an accident belonging to many species. But the nature of an image requires likeness in species; thus

the image of the king exists in his son: or, at least, in some specific accident, and chiefly in the shape; thus, we speak of a man's image in copper.” (Aquinas)

Harold Hatt gave a definition of the *Imago Dei* in his book *Cybernetics and the Image of Man*. To him, the *Imago Dei*'s “purpose is to indicate that which comprises the specific character of man and his special relation to his Creator. Moreover, as a creature of God, man is to be understood in relation to God, not merely in relation to the created order, both animal and natural or animate and inanimate.” (52) It is this relationship between Man and his Creator that is really important here. “Man’s need for the revelatory word of God is not simply a need for the disclosure of knowledge about God but is an expression of man’s need for relation with God. The word of God is not simply the impartation of knowledge but is the personal address which calls man to respond and which establishes his human nature as specifically ‘existence in responsibility.’” (Hatt 52)

“In the biblical account of creation, the affirmation that God created man in his own image is followed by the expression of the divine command that man subdue the earth. [...] First we must understand man in relation to God, who as the Creator of man is the source of the nature and destiny of man. Then, following from this, man is called to subdue the earth, or to transcend nature. Man is first distinguished from God and then distinguished from nature.” (Hatt 87) So Man is under God but ruling over nature. God is separate from Man because he is the Creator, but He has set Man apart from the rest of nature in giving Man His image and commanding Man to rule over the rest of creation.

Harold Hatt dives further into defining man by stating that “Man is both object and subject. An object is what it is, independently of its being known; a subject cannot have its being considered in isolation from its self-knowledge and will. Idealism tends to consider man

exclusively as subject; naturalism, exclusively as object. The understanding of man in terms of his encounter with God permits an adequate recognition of both facets without compromising either element. Man is a unity of body and mind in responsible relation to his Creator. This Christian self-understanding of man as a mind-body unit offers anthropology a most fruitful opportunity for dialogue between the understanding of man in Christian and in non-Christian thought.” (Hatt 91)

So, how does cybernetics fit in this whole scheme of destroying the *Imago Dei*? It cannot be said that someone with a pacemaker or a hearing implant is sinning by corrupting his God-given place in the world. Cybernetics is not an evil in and of itself, but like so many other things, cybernetics can be used with a good or evil intent. It is the intent of the user that determines whether its use is good or bad. Just like guns. Guns are not good or bad in and of themselves, but if they are used to defend one’s country or one’s family from harm, then the guns are good and useful tools. But on the other hand, if a gun is used to commit a murder, then it has turned into a tool of evil. As stated before, man is above nature and under God. Through use of cybernetics, man can end up striving to leave his God-given position in two ways: he can intend to become part of nature or he can intend on becoming a god like God.

With neural implants being able to send signals to the brain, someone could use neural implants to control his body to do work without his having to think about it. Or the implants could even be used to do someone’s thinking for them. In this way, Man has forfeited his place as a rational thinking being and has become no better than the rest of nature around him. But just the opposite can happen. Someone could use cybernetics to replace his own body part with the sole intent of becoming super powerful and immortal. In this way, Man is trying to become

more than what God has made him to be. Man is again striving to become like God and begins to build another Tower of Babel in the form of technology.

The more difficult question is to decide in what respects man can and should seek to become “God-like.” “On both sides there are certain attributes which must be ruled out as applicable to both God and man” (Sherry, 67) Certain attributes of God seem to be inapplicable to man, “for example necessary being, omnipresence, eternity and possibly, though this is more controversial, immutability. [...] In some cases, the attributes cannot be shared by men, in others they should not be sought (for example vengeance), and in most cases they should not be sought because they cannot be attained.” (67) Adam and Eve sinned by seeking an inordinate likeness to God through the knowledge of good and evil, whilst Lucifer sinned by craving to be like God in his might. (67) Man must be careful not to seek a likeness to God that God never intended man to be.

But Christians are called to be Christ like, “for Christian progress is seen as a matter of becoming more and more like Christ. Christ is ‘the image of the invisible God’ (Col 1:15), an image that reflects the glory of God in his face. Another similar idea is that of a character, [...] Christ ‘reflects the glory of God and bears the very stamp of his nature.’ Given this way of speaking, it is natural to go on to describe those who are most Christ-like in such terms, too.” (69) “If saintly men are Christ-like, and Christ is the image of God, then, assuming that the likenesses hold in the same respects, saintly men are like God. The elementary logical point has important epistemological implications: for if the saints are in the image of Christ and he is the image of the Father, then the saints reflect some of the glory of the Father. (70)

So what is the right way to use cybernetics? The intent of someone with a hearing aid or pacemaker is to return to the ideal human state. This is the attitude to have when using

cybernetic technology. The people with hearing aids or pacemakers are not trying to change their position in the world or deface the image of God in them. These people are trying to return to the ideal human state. Like all blessings, man should use the blessings given him to glorify God, and not to fight God and try to become something other than God intended man to be. Cybernetic technology can and should be used in a God glorifying manner, and man will not lose his position of honor over creation that God has given him.

So the problem has now been defined and a solution reached. Cybernetics is a great technological gift from God, man just needs to use it in the right way. We need to think deeply on the proper way to use cybernetic technology because once it becomes fully developed it will not just go away if we want it to. What Steve Mizrach claimed in his article on cyborg ethics was that “once a technology is out there, you cannot make it go away. The genie simply will not go back in the bottle. There never was a technology that the human race ever abandoned wholesale, even the hydrogen bomb or other weapons of mass destruction with the power to wipe out all life on Earth. You might eventually be able to ban the production of H-bombs, but it would take a long time to kill everybody who knew how to make one or eliminate all blueprints and specifications for the design. While scientists discussed the possibility of a ban on recombinant DNA research at the Asilomar Conference, they knew it was not feasible. Even if overt public funding for such research was cut off, covert private funding would continue to flow from various interested parties, as has happened with even disproven technologies like cold fusion.

Thus, once invented, bioelectronic technologies cannot be wished away. Once given the opportunity to improve themselves in any form, human beings rarely surrender the opportunity, whether it's ‘pumping iron’ or exercise to raise physical fitness, so-called ‘smart drugs’ to raise intelligence, or vitamin therapies to stem the onslaught of the aging process. When human

beings are offered the chance to utilize computers and electronic technologies within their bodies to achieve these same results, it is almost certain they will embrace them regardless of the risks. Based on this, it would be unrealistic to try and ban such technologies, however one might worry about their ethical and social consequences. A ban would only probably force them into a large, criminal black market, as illegal drugs and weapons already have been.”

Mizrach continued to say that it is an imperative for us, as a society to “assert that the scientists and engineers charged with creating this new technology exert the proper amount of social responsibility. Safeguards will have to be insisted on to prevent the possible negative impacts discussed above and many of these things will have to be built in at the instrumental level, since they probably cannot be achieved only through policy and regulation.” Mizrach ends his article with this sentence:

“But ultimately, bioethicists will have to grapple with the fundamental issues involved, which touch on aspects of human existence and human nature which reach to the core of what most people think is involved in what it means to be human, and this will not be an easy dilemma to resolve.”

Here he admits that in using cybernetic technology on humans we will have to consider what it means to be human. As the Westminster Confession states, “the chief end of man is to glorify God and enjoy him forever.” So what is man’s intent in using cybernetics? I encourage all Christians to have a mindset and intent to use cybernetics not to glorify themselves but to glorify God. In this, we can keep our position of honor as humans in the image of God, ruling creation under God. In all things we must have a Christ-like mind, so that we can become more like him. For “He is the image of the invisible God, the firstborn over all creation. For by Him all things were created that are in heaven and that are on earth, visible and invisible, whether thrones

or dominions or principalities or powers. All things were created through Him and for Him. And He is before all things, and in Him all things consist. And He is the head of the body, the church, who is the beginning, the firstborn from the dead, that in all things He may have the preeminence.” (Col 1:15-18)