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ARTIFICIAL INTELLIGENCE: HOW CLOSE WILL IT COME TO BEING "MADE IN THE IMAGE AND LIKENESS OF GOD?"

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Abstract

Because our modern electronic devices seem to do so many things, questions about the capabilities and dangers of this Artificial Intelligence (AI) arise. Will they compete against and possibly become independent enough to become a threat to humans? A look at the development of (AI) might help us understand what it is today—as well as its likely achievements—and its risks—as it continues to progress. In comparison, understanding what human life is, as something more than just part of the food chain, has been pursued by philosophers and psychologists (as well as theologians) over the years. Adding to those insights from an examination of the incarnation of Christ, particularly his hidden life as part of the Holy Family, combined with a parallel examination of the Image and Likeness of God in its Genesis 1:26 context of dominion, reveals an emphasis on the concepts of respect and mutuality. Examining this way of living out

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divine love, as it operated in Christ's hidden life, helps us clarify the difference between human intelligence and artificial intelligence—and why artificial intelligence needs human control.

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From Horror Stories to Reality: Is AI Useful but Dangerous?

The 1960s TV series "Star Trek" featured a space ship whose internal computer could talk to the crew members, execute commands, and even cook meals among other wonderful things. One of the episodes of that TV series, however, pitted that starship against a huge "weapon ship" created centuries earlier, but capable of destroying entire planets. Having lost its human control, it had become a formidable foe to all living things: a grim reaper mercilessly devouring everything in its path.

Half a century later, much of Star Trek's aspects have developed into reality. Many homes in my parish have "Alexa" from Amazon (R) to turn on the lights at a command word or adjust lighting and security, etc., or "Cortona" from Google (R) to find information. Families claimed that it was wonderful for elderly parents who needed just a bit of help with mundane actions—and then who could be monitored by adult children at a distance, lest tragedy strike. A legitimate concern, however, is who ultimately controls Alexa—or any similar such device? What if that device develops a flaw, due to a solar flare or some other event beyond human control, and does actions that imprison elderly parents instead of caring for them? Additionally, because all my technical friends have described to me how everything we do "online" is accessible to those with the skills to enter the "cloud" and spy on us, how pervasive (or invasive) is a system like Alexa? Who gets the information it collects?

With no certainty as to who has ultimate control of such systems, what is the prudent level of trust? Such a tool in the hands of a dictator could be more devastating than the Gestapo were. Worse still, such a tool without any human control—with machines themselves controlling those devices—raises terrifying prospects. Though there are indeed many safeguards against such machine malfunctions, how many times have any of us experienced our computer having a "mind of its own" and being uncooperative for no apparent reason? Unlike various tools that changed the history of world civilization in the past, from the discovery of fire to the bow and arrow to gunpowder to electricity to nuclear power, the

legitimate concern here is the tool becoming the master. Perhaps a look at the development of AI might give us some clues about its composition and its trustworthiness for the future.

A Short History of the Development of AI

There have been sophisticated tools to assist humans in doing some actions for centuries. Large clock mechanisms in city towers have been of benefit since the middle ages. Moveable type printing enabled the intellectual revolution with the availability of many books, accessible to even ordinary people. With the invention of the industrialized looms and the sewing machine, the making of clothing became much easier—but still needed human setting up which is a rudimentary type of programming for those machines. Such machines, particularly those that did the same mundane thing over and over again like shuttle movement or stitches, were simply more sophisticated tools in the hands of a human practitioner. Similarly, typewriters were a wonderful mechanical device for providing all kinds of legible reports (using carbon paper for multiple copies) and even doctoral dissertations. In the 1980s, computers were able to store and modify data, and thus eliminated retyping the whole dissertation whenever a footnote change was made. Yet is this truly intelligence, or merely well-designed programming?

The actual history of what we know as Artificial Intelligence (AI) is routinely acknowledged to have begun at a special collaborative conference at Dartmouth College in 1956 sponsored by IBM and convened by John McCarthy and Marvin Minski. It was there that the term Artificial Intelligence was coined. Various theoreticians, mathematical and mechanical, had been working in this area since the 1930s, but they had had little success integrating mathematical theory and mechanical functions before 1949. There were two reasons for this struggle. First, computers as part of big machines could only execute commands, not store them. They were more like very sophisticated clock or music box mechanisms. Second, the few big machines that did exist were very expensive, renting for $200,000.00 per month![1]

The essence of electronic machines is a series of "circuits." In an old-style radio using tubes, a pathway of wires between those tubes and turnable or "tunable" resistors and capacitors would "resonate" with a frequency from the air waves and let electrons flow or

[1]Rockwell Anyoha, Harvard Univ. blog spot ed. on Artificial Intelligence, Aug 28, 2017, sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/

circulate in that circuit of wires to allow the speaker to reproduce the sounds that came over the radio waves. Before 1955, radios were large because of the size of the circuits and the tubes. It was about this time that transistors were developed to replace tubes in electronic devices. This reduced the size of devices, reduced the heat generated by such an array of many tubes, increased the efficiency—and thereby increased the multiplicity of pathways (and the ability to analyse data) in an electronic way. Indeed, the printed circuit, using transistors made of semi-conductor materials that replaced a tube (the size of your thumb) with something the size of a pin-head, reduced the size of a "transistor radio" when I was a little boy to that of a deck of cards. TV circuitry works the same way. As semi-conductor engineering continued to improve, the abilities of these printed circuits doubled every year—making increasingly complex programs possible. This use of semiconductors was the beginning of what we refer to today as "hardware" in computers.

With these developments in transistor (semi-conductor) engineering, the insights from mathematical theories by British polymath Alan Turing in a 1950 paper "Computing Machinery and Intelligence"[2] could be applied. In 1955 Alan Newell, Cliff Shaw and Herbert Simons developed *Logic Theorist*, a "program designed to mimic the problem solving skills of a human."[3] This was the beginning of what we understand as "software" and was loaded into these ever-more-capable computers in a variety of ways, including from large boxes of punch cards.

The synergistic effect of bringing many of these researchers together at that 1956 Dartmouth College symposium resulted in great progress in computer development from 1957 to about 1970. Many applications developed, including technology for lots of electronic devices for homes, and scientific uses that involved processing lots of data accurately and well; but the level of progress did not match expectations and funding and interest went dormant for a decade.[4] In the 1980s this was reignited with the development of new algorithms to make better use of the ever-more-capable hardware. Funding increased, leading to companies like Radio Shack and Honeywell and Texas Instrument and IBM and Apple, among others, developing those wonderful personal computers that revolutionized the typing of dissertations. The linking of those computers together—first by cables within offices, then by signals—eventually resulted in the

[2]Alan Turing, "Computing Machinery and Intelligence" *Mind* 59, 236 (Oct 1950) 433.
[3]R. Anyoha, Harvard Univ. blog spot ed. on Artificial Intelligence.
[4]Anyoha, Harvard Univ. blog spot ed. on Artificial Intelligence.

development of the internet in the 1990s. Another breakthrough, speech recognition, followed soon thereafter.[5] As hardware and software continued to improve, in 2006 the smart phones made the internet mobile and gave us social media. All these allow a *programmed connection* between those who input data for processing.

AI Benefits, Liabilities and Characteristics

Benefits: In addition to remarkable developments in communication, including magnificent assistance with human language and translation skills, the use of artificial intelligence in analysing and interpreting large groups of numbers has also assisted scientific research—and continues still to help both scientific work and business and even political researchers make great strides. One application is the use of "activity data" from communication devices to predict trends for business.[6] Another is the sorting of potential structures for drugs from among millions of possible modifications of a steroid structure, and even finding options that humans may have overlooked.[7] A further help is greater precision, such as the use of robotics in very delicate surgery because the robotic scalpel can be adjusted to cut more precisely than skilled human surgeons can, or how some cars are programmed to be self-parking by using images of the cars around them, control of just enough fuel and turning to manoeuvre the vehicle, and the ability to readjust both actions as the car moves.[8]

Limitations: Though the continued improvement in transistor structure enables us to have available better "hardware" to receive the programming or "software," there is a limit—for the current size of the "individual transistor" is approaching the size of some molecules—and can go little further without destroying the semi-conductor capability of the transistor. Another limitation of AI is the connection of the software to the hardware. This is called the "architecture framework" and is in accordance with standards[9] whose configuration vary with the type of computing being done. Without this aspect, the voice in your phone would not be translated

[5]See "Dragon Naturally Speaking" a program sold commercially, or the voice-to-text transmission built into most cell phone answering programs.

[6]Simran Bagga, "Text Analytics: Unlocking the Value of Unstructured Data," July 2016, www.sas.com/textanalytics

[7]"Artificial Intelligence in Drug Discovery: Hope or Hype?" Special report of the American Chemical Society for members, see www.acs.org/discoveryreports

[8]R. Anyoha, Harvard Univ. blog spot ed. on Artificial Intelligence.

[9]See ISO/IEC/IEEE42010 for diagrams of such (also available under "architecture framework" on line).

into the electronic blips that transmit that "pulse" to another translator that puts those blips back into sounds or printing. Frameworks can be designed to keep the information and methods very private or quite accessible, designed to work more with numbers or with words, but all based on a binary system (each transistor pathway is either "on" or "off").[10] The third limitation involved in how one enables a machine to continue not only receiving data and analysing it, but make ongoing decisions and learn from experience. These computing machines, particularly those trained to beat masters at games of chess or go, need to be programmed with (1) what a solution looks like and (2) what *all* the winning solutions and virtually *all other possible* outcomes look like. Only after such extensive programming of the parameters of action can the machine operate.[11]

Characteristics: Though the potential for combining translation capabilities, voice recognition, movement of parts (even flying in drones), and analysis of options toward "choosing" the right ones in some devices [the KISMET robot] have been described as exhibiting emotions human-like enough to fool listeners, that *binary* system described above only lets choices proceed in one direction or another—then return to that "branch" when the pathway reaches a dead end. All machine actions are a series of clear, cold choices, whose parameters have to be pre-programmed into the system. Yet, as all these complex actions seem to come very close to human action, if we want to do a true comparison, it is wise for us to examine what unique capabilities truly constitute a human person—or whether humans are simply "programmed" biological entities.

Humans are More than Just Dominators of the Material World: They Exercise Dominion

The initial account of creation at the beginning of Genesis shows God calling all that he had made each day "good." Like the ending of the other five days of creation, Genesis 1:25 describes God's finishing the completion of all plants and animals—and calling them "good." Then in Genesis 1:26 we find the first mention of humans as made in the image and likeness of God, and as being given a special responsibility: dominion. All other creatures are encouraged to be fertile and multiply, but only humans are made in God's image and

[10]Personal communication from long-time designers of architecture, Howard & Lisa Mohn, Washington, DC, USA 2020.

[11]Personal communication from long-time designers of architecture, Howard & Lisa Mohn.

given the responsibility of dominion. Even though humans are a part of created reality, they seem to have a special place—related to that special responsibility of dominion.[12] As described below, understanding this concept of dominion is assisted by understanding what human freedom is and how that freedom is best exercised in the example of Christ.

Starting by using standard observation and what is called "evidence-based reality" which is the foundation for the normal method of work in science and engineering, it is clear that humans are part of the living entities on the planet earth. They are land-based upright-walking animals, who have used hand skills to enhance their survival. Humans can find air, water, food, clothing and shelter; but they enhanced these survival skills to include delightfully cooked food and exquisite drinks, comfortable and durable clothing, and very efficient and beautiful dwellings. They can survive and flourish in any climate, have devices that can traverse land, sea and even the air—and into outer space. They can create art and music and poetry, and they can self-reflect on such issues.[13] Unlike other animals, humans spend approximately two decades in raising each young member to adulthood. Yet there seems to be something much more to humans than simply these characteristics. Humans don't just take from nature; they enhance.

Despite attempts by some philosophers, particularly from the behaviourist tradition, who deny that humans are anything more than well-developed animals, programmed to do what they do and lacking even free-will or anything beyond being at the top of the food chain,[14] the whole philosophical tradition in both eastern, western and nearly every other human culture has done self-reflection and sought for meaning in life (and death). Though it is clear that humans have *intelligence* (or they would not even be talking about these issues with each other), the question of what differentiates human intelligence from AI leads to the idea of *freedom*.

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[12]The essential difference between *domination* which indicates an overpowering and forced submission (a milder version of "dog eat dog" or "might makes right" selfishness), and *dominion* is the sense of mutuality and respectful care.

[13]For a broad philosophical discussion of several standard positions on the essence and structure of humans, their capabilities and limitations, see *Encounter: An Introduction to Philosophy*, *Part III: Minds, Bodies and Selves*, 128-201, listing essays by R. Descartes, J. Smart, J. Royce, M. Merleau-Ponty, G. Ryle, D. Hume, H. Bergson & G. Mead as well as an extensive bibliography, compiled by Cormier, Chinn & Lineback, through the University of Michigan, published by Scott Foresman & Co., Glenview, IL, USA, 1970.

[14]Owen Flanigan, *The Really Hard Problem: Meaning in a Material World*, Cambridge, MA: MIT Press 2007.

What Really is Freedom and how should it be Exercised?

The concept of freedom increases with complexity. Plants can send roots toward water sources, leaves can grow, and sunflowers even turn toward the sun and follow its movements throughout the course of the day. Animals have much greater freedom of movement. Single-celled organisms exist and move both in sea water and in fresh water; multiple celled species develop digestion and some have methods of propulsion to move toward the nutrients; and fish can follow plankton, seaweed and other schools of fish to eat to survive. One can continue this terribly-oversimplified description of the "food chain" to explore reptiles that hatch their young but also eat them, mammals that form herds for protection of their young, birds that teach their young to fly from intricately built nests in remarkable places, and predator animals that choose a prey, stalk it, and bring it home to their young. The sense of freedom of movement in coordinated animals, such as the *individual* movements of each member of a pack of wolves that hunt together, is hard to describe as somehow programmed into them millennia ago. It is equally reasonable to suggest that they make some kind of a free choice to choose one animal rather than another, to run one direction rather than another, and even to mate with one animal rather than another.

Humans have a sense of freedom that is similar to, but radically surpasses, that of other animals. They can reflect on their choices and describe to others their motivation for making any choice. Moreover, they can even choose to go against the instinct for self-preservation and sacrifice themselves for the good of others.[15] Though other animals exhibit care, particularly for their own young, humans raise their capacity to care into a devoted love that yields both physical and emotional dedicated care for strangers, including the elderly—and anyone over whom they have any kind of responsibility (political or military duty, medical skill, etc.). Though humans also have the capability to do the opposite: oppress the weak, inflict cruelty, betray others for gain, etc., in short—sin, this itself confirms that humans are "free" to do good or evil. This good behaviour surfaces time and time again in crisis situations. Indeed, the sense of "rising to the need" is so pervasive in human history that it has become proverbial across multiple human cultures that "Humans are often at their best when things are at their worst…" These free altruistic instincts in humans

[15]Although mother animals have been known to shield their young from a fire, for example, and die in the process, just as bees protect their queen, humans can and have done heroic actions like fall on a grenade for relative strangers. Additionally, many humans still do more ordinary "random acts of kindness" for total strangers.

are contrary to the dog-eat-dog food chain or even the will to power or domination of others. Biblical perspectives describe the source of these good actions as that very Image of God in Gen 1:26. Christians offer Jesus Christ as the exemplar of that Image of God which undergirds these altruistic socio-political interactions.[16]

Creation in and through Christ

Though the divinity of Christ is slowly revealed in the Gospel accounts of his public life, perhaps the humanity of Christ might best be revealed by the years of his hidden life. Indeed, the *way* Christ lived his hidden life may reveal to us what it means to be human: made in the Image and Likeness of God. Though conceived freely by divine choice through the auspices of the angel Gabriel and the acceptance of that call by Mary of Nazareth, Christ nevertheless began in time as a tiny cell and grew into the baby born in the stable at Bethlehem. Though it is true that the most common theological perspective on this incarnation, expressed in the insight of St Anselm,[17] holds that human and divine were joined at that point to pay the debt of our sinfulness, there is an alternative Catholic view—which might be of help here. Blessed John Duns Scotus, following in the tradition of many of his Franciscan intellectual forebearers that "the Word would have become incarnate even if Adam had not sinned," [18] argues for a much deeper and more original connection deriving from Jn 1:3 "All things came to be through him, and without him not one thing came to be that has come to be." This is a stronger reference to activity of the Word (logos) than that of the agency of the third person of the Trinity in Gen 1:2b "the spirit (ruah) of God hovered over the waters."

Focusing on this idea that everything came through Christ, we can see Christ's family life, including his growing up somewhat normally (Lk 2:40) including his "getting lost at age 12" (Lk 2:41-52) as revealing a true humanity. St Joseph did not dominate, but nurtured. The 12-year-old Jesus, God that he was, went home and was "obedient" to Joseph and Mary. Scotus would see this connection as reinforcing the intense relationship of God to humans and to all other

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[16]St Paul continues to develop this intimacy with creation in the concept of *primacy* "He is the first born of all creation, in every way the primacy is his" (Col 1:15).

[17]*Cur Deus Homo*, in which the sin of Adam is described as a happy fault that caused an even greater benefit.

[18]Dawn M. Nothwehr, *The Franciscan View of the Human Person: Some Central Elements*, vol. 3, Ney York, NY: Franciscan Heritage Series, St Bonaventure Univ, St Bonaventure, 2005, 54, with a list of these scholars in Footnote 124.

creatures in the "univocity of being."[19] This perspective holds that we are real and true entities, just as God is, and that we can truly resonate with him as an image reflects the source, though clearly different in degree because God is uncreated being and we are created being. The Franciscan tradition claims that Christ was intended from the very beginning by God to become incarnate[20] to complete the final piece of the connection to humanity out of divine freely willed love for us. As such, Christ's coming as a helpless infant and growing to adulthood within a family are not merely extra demonstrations of Christ's humility, but are both (1) natural to him as they are to us and (2) instructive in how to live out our human nature. They are natural to him because he is the agent and "mould" through which everything comes into existence and show us what "made in the image and likeness of God" means in Gen 1:26. They also show us how to live out the idea of "dominion" in that verse within the context of a family: nurturing and challenging rather than dominating to help others grow in wisdom, age and grace.

Scotus offers the creation of humans through the mould of Christ as the true source of good actions and good attitudes.[21] These are manifested in our relationships. Scotus proposes that when humans interact with one another there is both the tendency toward self-preservation or selfishness, as well as a sense of justice (a balance in society so that everyone prospers leading to a sense of cooperation with other humans).[22] What makes us more human than animal is the greater emphasis on that sense of justice rather than self-aggrandizement. Though there can be domination and a hierarchy of power in any animal family, the true essence of human family relationships is dominion.

Scotus also sees this intimate connection between Christ and all of creation (humans, animals, plants, etc.) as the source of the Franciscan respect for and connection to all things (Brother Sun, Sister Moon, etc.).[23] Though this can lead to the false doctrine of

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[19]William A. Frank & Allan B. Wolter, *Duns Scotus, Metaphysician*, Lafayette, IN: Purdue Univ. Press, 1995, 120-1.

[20]Scotus, *Reportatio and Ordinatio III.7.3*, in Nothwehr, *The Franciscan View of the Human Person*, 53.

[21]Beraud de Saint-Maurice, *John Duns Scotus a Teacher for our Times,* Columban Duffy, OFM, trans., New York: Franciscan Univ. Press, St Bonaventure, 1955, 239-275.

[22]Mary Beth Ingham, *Scotus for Dunces, an introduction to the Subtle Doctor*, Franciscan Institute Pub., New York, NY: St Bonaventure Univ, St Bonaventure, 2003, 38 & 75.

[23] Horan, Daniel P., "Haecceitas, Theological Aesthetics, and the Kinship of Creation: John Duns Scotus as a Resource for Environmental Ethics," *Heythrop Journal* 59 (2018) 1060-1076.

panentheism, that heresy is actually contradicted by the Incarnation itself. For if Christ Jesus our Saviour has a unique human body, distinct from his apostles and all other humans, then he is likewise distinct from all animals, plants and minerals—even though these are all composed of protons, neutrons and electrons in every atom in every molecule in every cell of every living thing.

Yet this connection to Christ as the one through whom all things were made is still very deep despite differentiation (which Scotus describes extensively as *haecceitas*[24]). Just as a fertilized sperm and egg cell multiply and differentiate, so that each kind of cell generated from that single cell has identical chromosomes yet acts differently by doing what is its proper function; so also the living cells (humans and all other creatures) produced by and through Christ are intimately a part of him—from the very beginning of creation—yet are distinct. Respecting this distinction, yet enabling mutuality, is an essential part of dominion.

Dominion as Mutuality and Respect

This connection of Christ within a human family seems to anchor that sense of dominion into our broader human society. Christ's participation in the Holy Family at Nazareth (Lk 2:39-40 and 2:51-52) reveals the operations of dominion in its proper setting. But as fundamental and universal as family life is, we are also part of a larger family, with dominion continuing to be the operational principle for the right functioning of society. But though family members care for each other and sacrifice for each other (parents care for children, and [half a century later] children care for those parents, etc.) individuals in times of trouble or need in societies "rise to the occasion" and may sacrifice even more intensely for the common good.[25]

Though much of human society, particularly the business world, can often function in a "dog eat dog" manner, the business model is not the only one and certainly not the best one for crisis situations. Another family-like model, an example of dominion operating in ways that seemingly restrict yet ultimately enhance the exercise of human dignity, is the military unit. It has an essential task to perform as a unit, the defence of the nation, which engenders a mutual support to accomplish that life-risking mission. I have experienced

[24]Ingham, *Scotus for Dunces, an introduction to the Subtle Doctor*, 110-112.

[25]By contrast, we see the lack of the sense of dominion in 2 Kings 12:1-20 where Solomon's son Roboam shows such disrespect toward his people that it divides Israel into the northern and southern kingdoms.

that sense of mutuality between the commander and his junior officers, his senior enlisted members, and even the most junior soldiers. Observing from the outside, the relationships in military units look like domination: giving orders and following them (often with a resentful attitude). The opposite is quite true: the senior leaders look after the welfare of the more junior soldiers—and provide care for their families—even when having to administer punishments of any kind. There is a brotherhood bond that sees each member of the unit as a team member, essential to the success of all. After all, each person's life is dependent on the other's actions. We each know that our fellow soldier, no matter who he is, has been trained to a standard (during months or even years of skill development and moral toughening, parallel to the rearing of offspring),[26] has vowed to serve, and has "got our back" when danger threatens.

Moreover, though individual personalities inevitably affect relationships, in American military units the members are rotated in and out fairly frequently. The result, however, is not a diminution of bonding but an extension of that bond of brotherhood to everyone in uniform immediately upon seeing them. Soldiers (including the commanders) eat the same rations, sleep on the same ground, and even help carry each other's burdens. Though a leader may have to send any or all of his soldiers into harm's way, he knows that such is what we all have trained for, and that we are willing to risk injury and death for the sake of the nation we have vowed to protect. There is no domination in a true military team, only a dominion that lets each person, commanders included, excel in their specific duty at each rank. Indeed, there is a mutuality in skill and functionality, and a mutual respect that one can actually feel. Though not all human relationship, or even human to animal relationships, have a sense of family about them, this military unit model demonstrates that the sense of dominion *can* extend beyond the family.

Conclusions: Human Need to Maintain Dominion over Artificial Intelligence

With at least some sense of what humans are, based on the Image of God, modelled by Christ's hidden life, as dominion that involves interaction with and care for others with mutual respect, one can compare this to Artificial Intelligence. There are striking contrasts: The very structure of AI is one of electronic dominance: one pathway

[26]Roger J. Spiller, *Combined Arms in Battle Since 1939*, Leavenworth, KS: US Army Command and General Staff Press, 1992, xiii-xiv.

is accepted and another is rejected. Although one computer can organize the tasks of another, there is no sense of dominion. Moreover, the concept of mutual care is completely missing in AI, including any sense of emotional attachment despite the programmed attempts to exhibit emotions described above. Moreover, they are fragile, for an external Electronic Frequency Blast, such as from a sunspot or even a deliberate nuclear explosion, can completely disable a nation's worth of AI devices that are not extensively shielded.

Humans have a responsibility to mitigate such risks. Just as with any complex (or dangerous) tool, there is the possibility of not only misuse, but the ability to monopolize and control. In the late 1800s, railroads were seen as that kind of controlling danger—so they were strictly regulated by governments. Today communications media (closely related to and using lots of AI) are concentrated in a consortium that has begun to censor anything they disagree with—including helpful medical data. Finally, the continued dependence on computers as the only way to "authorize" things like medical actions or safety dispatches, for example, has already lead to delayed rather than enhanced responses (people needing medicines, like shots, but the "computer is down" so even the doctor authorizing that shot cannot himself give it to the patient). For safety sake dominion by humans needs to be able to override this.

As with every new discovery, there are benefits that have come and more are expected. As described above, the use of AI in sorting possible candidates for drug research, the analysis of immense quantities of data to find clear trends for marketing of products or ideas and the use in enabling translations is already a significant help to the human community. Although other devices may eliminate some human jobs, the need for humans to manage this data entry is likely to continue—because AI devices need to be programmed to function. Indeed, with proper human supervision AI, like any tool, can be used for great good—honouring the God who created us all and who has enabled humans to create AI.