Machine Intelligence: Humanity's Swan Song or Hallelujah Chorus?

By Lawrence G. Downing

The story of the human family is a record of challenge, adaptation, and struggle for survival. Our earliest history reports numerous threats to human viability and existence. War and plague have decimated large populations. Social, economic, and political upheavals have threatened survival. Religious zealots have diminished and extinguished human life. Now, rapidly in the ascent, come threats from a source that was unknown until modern times: artificial or machine intelligence.

In the past, responses to threat included the application of logic, migration to a more secure locale, denial, directed violence, and other physical and psychological retaliations. What holds promise to counter any perceived or real threat from artificial or machine intelligence is the puzzle. It may come down to the creative application of the one organ capable of resourceful evaluation, effective response, defined purpose, and other factors that, in the past, have provided assurance of our superiority over all other beings: the human brain.

But what of a machine? Does an existential threat await us, one that arises and is perpetuated by a system disassociated from life, as we know it? In direct terms, will humans be supplanted by a non-life contraption intent on making the human brain obsolete?

In the universe we know that the *homo sapiens* brain and the complex nerve systems the brain communicates with and regulates sets humans apart from all other known lifeforms. Humans possess the ability to observe reality and to respond to what is observed or deduced.

Ours is the ability to reach beyond, to calculate consequence, to explore meaning, to risk and consider physical and emotional needs. We ponder our failures and achievements. Our dreams take on a life of their own. Our hopes are made real. Love, anger, frustration, hate—the human emotional chart is broad and deep.

It is our practice to give thought to our future, including the contemplation of our end. We are unique among the animal world in this ability to ponder our final end, the mystery of nonexistence, and react to these thoughts. From earliest times, humans have struggled to wrap their minds around the implications of nonexistence and what awaits after death. The pyramids of Egypt are among the most spectacular affirmation of our ability to contemplate and prepare for that which lies beyond.

Would we be less human should any of these factors be usurped by a machine that has within it the ability to perform or experience one or more of what are now identify as human traits? Should it be that we become citizens of a world controlled by data and calculations, where machines, our created contrivances, shape and control thought,

action, purpose; provide comforts and security? We all ask, "What will be the need, the purpose, the rationale for the continuation of human life, as we know it?"

As children we were intrigued by the question, "If a tree falls in the forest and there is no one around to hear it, does the tree make a noise when it fell?"

The arguments of those who claimed "Yes" were opposed, at times with considerable force, on the part of those who opined "No." The discussion likely ended with no definitive conclusions that would find their place in a quantum physics tome. None of the disputants had the most primitive notion they were touching the fringes of a metaphysical proposition. It is certain that the arguments to which I was privy evidenced no awareness the questions infringed on the edges of metaphysics, perception, and consciousness. To put it in other words, is a rational, conscious being, such as a human, the essential component to validate an event or object?

Deepak Chopra relates the following: "He (Albert Einstein) once walked back from the Institute for Advanced Study in Princeton with the late Abraham Pais. The moon was out, and Einstein asked Pais, 'Do you really believe the moon is not there when you are not looking at it?'" Is the role of the human to be that of a receptor, a participant, a presence to authenticate and make real that which is observed or sensed in the universe? Might there be more to life than a validation instrument?

Life, in whatever form, is in significant ways, an undefinable entity. We can measure and weigh a living thing. We can define the various parts and functions associated with what we have determined defines life. We can program our machines to mimic the neurological changes that occur in our system when extraneous forces or concepts are introduced.

In our early introduction to the biological universe, we learned that living things can take in nourishment; most expel the unused portion of the intake. We accepted that life forms adapt to their environments and have the capacity to reproduce themselves and, to each, there comes an end. Our machines and analytical abilities struggle to take us beyond these primitive abilities. We are at a loss to measure the soul-force that propels the explorer to venture beyond the known. We meet our match when we seek to replicate the charisma, the dynamics and powers associated with leadership. These forces, while not vital to produce and perpetuate life, combine to enable one to reach a level that enriches and exhilarates human existence.

The expansion of life forms to include the human family involves additional identifiers. René Descartes well said *cogito ergo sum*. As far as we know, humans are the unique life form that demonstrates the ability to contemplate its being, its past, its present, and its future. The human can package this information and communicate to others the processes that are stimulated by the gift of cogitation and the expected or hoped for results that develop from these musings. It is our gift to reflect upon our existence, to

¹ Deepak Chopra, "Why Einstein Was Wrong About the Moon," SFGate. Dec. 23, 2019, www.sfgate.com.

contemplate the meaning of our lives and the termination of our life. We are emotive creatures, responding emotionally to real or perceived events or states of being. Others' opinions of us matter, as does our standing within a community and others of the human family. We have within us the ability to demonstrate accountability, accept responsibility, and, with intention, chart our future. It is common for humans to make what, to an objective, data-driven observer, are irrational decisions: a first responder risking life for an unknown person, a parent giving support and treasure to an irresponsible child.

With the above as a partial list of what we might term life identifiers, where will the possibilities associated with real and theoretical abilities of the machine intelligence mechanisms find their place? Will our engineering and technical skills advance to the level that makes possible a machine that combines the dexterity of the human skeletal arrangements, the cognitive and emotive traits and other factors that together set humans apart from all other life-forms? Is there in our future a non-human mechanism that will cogitate and pronounce on matters related to the possibility that there is purpose to life and there may exist a power that is above all universal forces? Will a contrivance have within it the process that leads to an appreciation of its environment, ponder its place in the universe, and respond to existential stimuli that are separate from cognitive function? Is it too much to expect from a machine that somewhere deep within resides the awareness that there is more to life than sustenance, productivity, analysis? In what segment lies the ability to process, appreciate, and respond emotively to a painting, a symphony, a sunset, or a drifting cloud? Will an instrument of our design and manufacture produce and equal the genius of a Michelangelo, the wonder of a Brahms symphony, the touch of a child's hand in ours?

With the above as the context of our question: Machine Intelligence: Humanity's Swan Song or Hallelujah Chorus? I propose the answer is that machine intelligence does do not, nor will it any time soon, hold threat to those factors and forces that allow us to call ourselves *human*. Machines will not create humans; humans will create machines. Until the reverse is true, the equation will remain in our favor.

This is not to say that machines will never dominate humans. Such a statement parallels that of the skeptics who affirmed man would never reach the moon, much less walk on it. Impossible! Such foolish supposition countered common sense, ignored Divine purpose, and violated known science. Welcome to the lunar lander. Let me introduce you to Neil Armstrong!

Will machine intelligence ever replace humanity? Will we one day submit to that which we have puttered with, agonized over, made much of, and wired? Will that thing be the progenitor of Frankenstein monsters or provide solace to a conflicted world? The answer awaits.

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About the Author: Dr. Lawrence Downing, DMin, after his forty years as a Minister, university professor, and author specializing on human values, ethics, and moral leadership, joined the Kepler Space Institute (KSI) in its formative years as the Director of Space Faith.

Editors' Notes: There is increasing concern that the exponential acceleration of machine intelligence will occur in the absence of an agreed identification of what we humans prefer to be in the future. Dr. Downing here focuses on that issue, is concerned about the potential threats of machines to humanity, and concludes with: "Will machine intelligence ever replace humanity? Will we one day submit to that which we have puttered with, agonized over, made much of, and wired? Will that thing be the progenitor of Frankenstein monsters or provide solace to a conflicted world? The answer awaits." Readers will find our special issue on the legacy of Professor Yehezkel Dror, in the Spring 2018 issue of the *Journal of Space Philosophy*, and in his *Steering Human Evolution* book, he states that global leadership is sleepwalking on (ignoring) many threatening issues to humanity, including the uncontrolled acceleration of technology. *Bob Krone and Gordon Arthur*.