Is Singularity here?

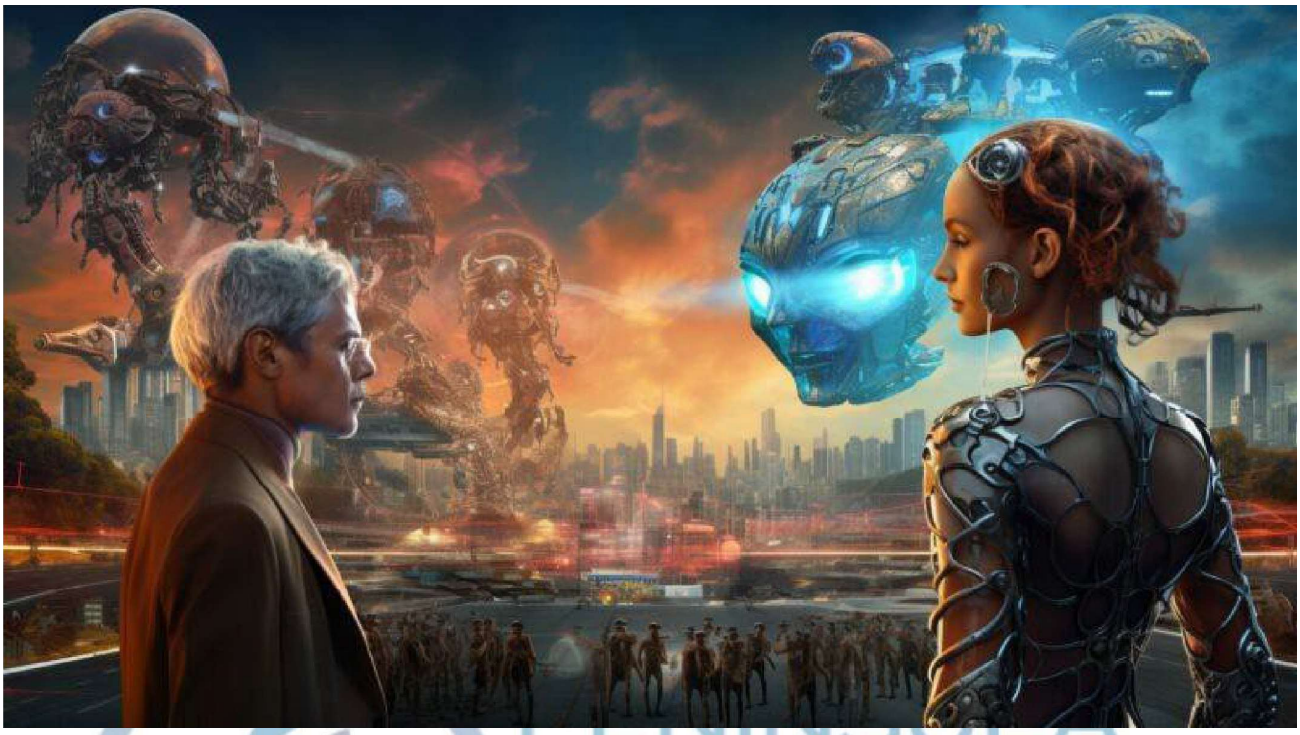
By Alfredo Toro Hardy



One of the most influential figures in the field of AI, Ray Kurzweil, has famously predicted that the Singularity will happen by 2045. Kurzweil's prediction is based on his observation of exponential growth in technological advancements and the concept of "technological singularity" proposed by mathematician Vernon Vinge.

The term Singularity alludes to the moment in which artificial intelligence (AI) becomes indistinguishable from human intelligence. Ray Kurzweil, one of AI's fathers and top apologists, predicted in 1999 that Singularity was approaching (Kurzweil, 2005). In 2011, he even provided a date for that momentous occasion: 2045 (Grossman, 2011). However, in a book in progress, initially estimated to be released in 2022 and then in 2024, he announces the arrival of Singularity for a much closer date: 2029 (Kurzweil, 2024). Last June, though, a report by The New York Times argued that Silicon Valley was confronted by the idea

that Singularity had already arrived (Strifeld, 2023). Shortly after that report, in September 2023, OpenAI announced that ChatGPT could now "see, hear and speak". That implied that generative artificial intelligence, meaning algorithms that can be used to create content, was speeding up.



Is, thus, the most decisive moment in the history of humankind materializing before our eyes? It is difficult to tell, as Singularity won't be a big noticeable event like Kurzweil suggests when given such precise dates. It will not be a discovery of America kind of thing. On the contrary, as Kevin Kelly argues, AI's very ubiquity allows its advances to be hidden. However, silently, its incorporation into a network of billions of users, its absorption of unlimited amounts of information and its ability to teach itself, will make it grow by leaps and bounds. And suddenly, it will have arrived (Kelly, 2017).

The grain of wheat and the chessboard

What really matters, though, is the gigantic gap that will begin taking place after its arrival. Locked in its biological prison, human intelligence will remain static at the point where it was reached, while AI shall keep advancing at exponential speed. As a matter of fact, the human brain has a limited memory capacity

and a slow speed of processing information: About 10 Hertz per second (Cordeiro, 2017.) AI, on its part, will continue to double its capacity in short periods of time. This is reminiscent of the symbolic tale of the grain of wheat and the chess board, which takes place in India. According to the story, if we place one grain of wheat in the first box of the chess board, two in the second, four in the third, and the number of grains keeps doubling until reaching box number 64, the total amount of virtual grains on the board would exceed 18 trillion grains (IntoMath). The same will happen with the advance of AI.

The initial doublings, of course, will not be all that impressive. Two to four or four to eight won't say much. However, according to Ray Kurzweil, the moment of transcendence would come 15 years after Singularity itself, when the explosion of non-human intelligence should have become overwhelming (Kurzweil, 2005). But that will be only the very beginning. Centuries of progress would be able to materialize in years or even months. At the same time, though, centuries of regression in the relevance of the human race could also occur in years or even months.

Humans equaling chickens

As Yuval Noah Harari points out, the two great attributes that separate homo sapiens from other animal species are intelligence and the flow of consciousness. While the first has allowed humans to become the owners of the planet, the second gives meaning to human life. The latter translates into a complex interweaving of memories, experiences, sensations, sensitivities, and aspirations: meaning, the vital expressions of a sophisticated mind. According to Harari, though, human intelligence will be utterly negligible compared to the levels to be reached by AI. In contrast, the flow of consciousness will be an expression of capital irrelevance in the face of algorithms' ability to penetrate the confines of the universe. Not in vain, in his terms, human beings will be to AI the equivalent of what chickens are for human beings (Harari, 2016).

Periodically, humanity goes through transitional phases of immense historical significance that shake everything on its path. During these, values, beliefs and certainties are eroded to their foundations and replaced by new ones. All great civilizations have had their own experiences in this regard. In the case of the Western World, there have been three significant periods of this kind in the last six hundred years: The Renaissance that took place in the 15th and 16th centuries, the Enlightenment of the 18th, and Modernism that began at the end of the 19th century and reached its peak in the 20th.

Renaissance, Enlightenment and Modernism

The Renaissance is understood as a broad-spectrum movement that led to a new conception of the human being, transforming it in the measure of all things. At the same time, it expressed a significant leap in scientific matters where, beyond great advances in several areas, the Earth ceased to be seen as the centre of the universe. The Enlightenment placed reason as the defining element of society. Not only in terms of the legitimacy of political power but also as the source of liberal ideals such as freedom, progress, or tolerance. It was, concurrently, the period in which the notion of harmony was projected into all orders, including the understanding of the universe. During this time, the scientific method began to be supported by verification and evidence. Enlightenment represented a new milestone in the self-gratifying vision human beings had of themselves.

Modernism, understood as a movement of movements, overturned prevailing paradigms in almost all areas of existence. Among its numerous expressions were abstract art in its multiple variables, an introspective narrative that gave a free run to the flow of consciousness, and psychoanalysis, the theatre of the absurd. In sum, reason and harmony were turned upside down at every step. Following its own dynamic but feeding back the former, science toppled down the pillars of certainty. This included the conception of the universe built by Newton during the Enlightenment. The conventional notions of time and space lost all meaning under the theory of Relativity while, going even further, quantum physics made the universe a place dominated by randomness. Unlike the previous two periods of significant changes, Modernism eroded to its bones the self-gratifying vision human beings had of themselves.

The end of human centrality

Renaissance, Enlightenment and Modernism unleashed and symbolized new ways of perceiving the human being and the universe surrounding him. Each of these movements placed humanity before new levels of consciousness (including the subconscious during Modernism). In each of them, humans could feel themselves more or less valued, more secure or insecure with respect to their own condition and its position in relation to the universe itself. However, a fundamental element was never altered: Humans always studied themselves and their surroundings. Even while questioning their nature and motives, they reaffirmed their centrality within the planet. As it had been defined since the Renaissance, humans kept being the measure of all Earthly things.

Singularity, however, is called to destroy that human centrality in a radical, dramatic, and irreversible way. As a result, human beings will not only confront its obsolescence and irrelevance but will embark on the path towards becoming equals to chickens. Everything previously experienced in the march of human development, including the three above-mentioned groundbreaking periods, will pale drastically by comparison.

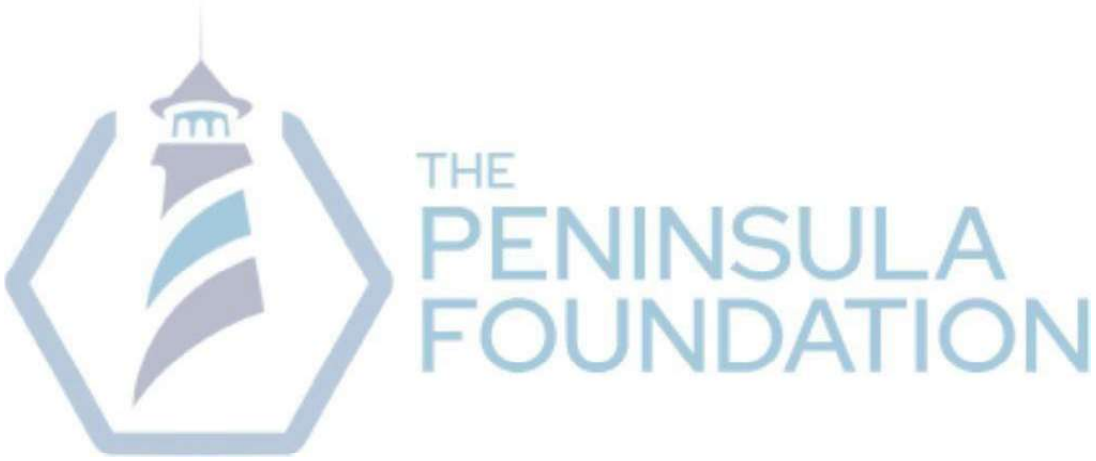
The countdown towards the end

We are, thus, within the countdown towards the henhouse grounds. Or worse still, towards the destruction of the human race itself. That is what Stephen Hawking, one of the most outstanding scientists of our time, believed would result from the advent of AI's dominance. This is also what hundreds of top-level scientists and CEOs of high-tech companies felt when, in May 2023, they signed an open letter warning about the risk to human subsistence involved in an uncontrolled AI. For them, the risk for humanity associated with this technology was on par with those of a nuclear war or a devastating human pandemic. Furthermore, at a "summit" of bosses of large corporations held at Yale University in mid-June this year, 42 percent indicated that AI could destroy humanity in five to ten years (Egan, 2023).

The risk for humanity associated with AI technology was on par with those of a nuclear war or a devastating human pandemic. At a "summit" of bosses of large corporations held at Yale University in mid-June this year, 42 percent indicated that AI could destroy humanity in five to ten years.

In the short to medium term, although at the cost of increasing and massive unemployment, AI will spurt gigantic advances in multiple fields. Inevitably, though, at some point, this superior intelligence will escape human control and pursue its own ends. This may happen if freed from the "jail" imposed by its programmers by some interested hand. The natural culprits of these actions would come from what Harari labels as the community of experts. Among its members, many believe that if humans can no longer control the overwhelming volumes of information available, the logical solution is to pass the commanding torch to AI (Harari, 2016). The followers of the so-called Transhumanist Party in the United States represent a perfect example of this. They aspire to have a robot as President of that country within the next decade (Cordeiro, 2017). However, AI might be able to free itself of human constraints without any external help. Along the road, its own self-learning process would certainly allow so. One way or the other, when this happens, humanity will be doomed.

As a species, humans do not seem to have much of an instinct for self-preservation. If nuclear war or climate change doesn't get rid of us, AI will probably take care of it. The apparently imminent arrival of Singularity, thus, should be seen with frightful eyes.



References

Cordeiro, Jose Luis (2017). "En 2045 asistiremos a la muerte de la muerte". Conversando con Gustavo Nunez, AECOC, noviembre.

Egan, Matt (2023). "42% of CEOs say AI could destroy humanity in five to ten years", CNN Business, June 15.

Harari, Yuval Noah (2016). *Homo Deus.* New York: Harper Collins.

Grossman, Lev (2011) "2045: The Year the Man Becomes Inmortal", *Time*, February 10.

IntoMath, "The Wheat and the Chessboard: Exponents.

Kelly, Kevin (2017). *The Inevitable*. New York: Penguin Books.

Kurzweil, Ray (2005). *The Singularity is Near*. New York: Viking Books.

Kurzweil, Ray (2024). The Singularity is Nearer. New York: Penguin Random House.

Streifeld, David (2023). "Silicon Valley Confronts the Idea that Singularity is Here", *The New York Times*, June 11.

Feature Image Credit: Technological Singularity https://kardashev.fandom.com
Text Image Credits :https://ts2.space



Alfredo Toro Hardy, PhD, is a retired Venezuelan career diplomat, scholar and author. Former Ambassador to the U.S., U.K., Spain, Brazil, Ireland, Chile and Singapore. Author or co-author of thirty-six books on international affairs. Former Fulbright Scholar and Visiting Professor at Princeton and Brasilia universities. He is an Honorary Fellow of the Geneva School of Diplomacy and International Relations and a member of the Review Panel of the Rockefeller Foundation Bellagio Center.