



Incredible Technological Advances do not Guarantee a ‘Rosy Future’

Michael Gurevitz

1. Department of Plant Molecular Biology and Ecology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Ramat Aviv 69978, Tel Aviv, Israel
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Ever since *Homo sapiens* acquired outstanding cognitive superiority over all other creatures, an evident anticipation supported by Darwin’s ‘Natural Selection’ theory insinuated an unstoppable effort to improve the fitness of the human species and its survival prospect, in addition to a clear incentive to protect its habitat (Earth; the only known planet enabling life). However, despite this logical assumption, humanity does not seem to consider seriously Darwin’s rules, and instead has seemingly approached a stage that resembles in a way a bacterial culture in a laboratory flask reaching the decline of its stationary phase (Ref. 1). This severe conclusion is based upon factual reality where humanity seems to ignore basic requirements important for continued survival, while dedicating very little to minimize global risks. Not only that the public apathy constitutes an enormous threat on the future of the human species, it raises an unforgivable indiscretion as to the ingenuity and developmental stage of the human brain. On the one hand, humanity has proven unprecedented capabilities in reaching tremendous technological advancements (e.g., in science, medicine, military, agriculture and humanities), while on the other hand, a large portion of the world population is still subjugated to primitive religious convictions and habits indicative of cognitive stagnation. These two opposing trends raise curiosity as to the future prospect of mankind, and so, when recently a known biologist expressed his illusive dream to wake up from 200 years of cryo-freezing to see how humanity advanced using wonders of the AI revolution, it immediately raised a few critical impediments that debilitated such a positive anticipation:

1. **Religions** have been established to satisfy the need of people for a patronizing superpower (God) that allegedly controls their life, and to calm fears of the unknown and death (Ref. 2). This need was exploited by eminent individuals (e.g., Moses, Jesus, Mohamed) and their followers (‘sanctified mediators’; Ref. 3) to utilize the amazing obedience consent of people and gain control over the masses. Still, despite the advances in civilized manners and ethical consensual values, religions did not reduce basic aggressive urges (built-in traits common to all animals). It seems that although religions relieved some fears, contributed to certain spiritual development, and provided an organized daily-life ‘menu’, they also created a reality of fatalistic belief in which cruelty, greed, brutality and intolerance have often prevailed. The derived inference is that religion has fulfilled most of its function in the past, but as a major object of rivalry and while fostering spiritual stagnation, is quite outdated nowadays.
2. **Superstitions and prejudice ideas** are common in non-developed societies and may be dangerous by raising deceptive perceptions. A typical example is Vladimir Putin’s recent travel to consult with Mongolian Shamans and Witches about his next military

steps of using nuclear weapons against Ukraine and other European opponents. He also used the opportunity to take a bath in deer's-blood with the belief it would strengthen his manhood (Ref. 4). This is a self-evident case of a superstitious dangerous personality able potentially to destroy humanity on the way of realizing his aspirations. Another long-standing example is the superstitious accusation of Jewish use of Christian children's blood for their Passover ceremony, a clear superstitious anti-Semitic claim arising from primitive racism, hatred and envy (Ref. 5).

3. **Aggression and hate.** Animals often fight to solve disputes and release pressure, usually when testosterone levels increase. Amazingly, despite the great spiritual development of humans, compared with other animals of the *Animalia* kingdom, they share basic aggressive urges (evolved as vital traits for survival), as is often reflected in attempts to solve disputes forcefully. Such a primitive approach, that can hardly be tolerated by civilized people, indicates that despite the spiritual and humanitarian developments, these aggressive urges, often leading to depreciation of human life (Ref. 6), arise most likely from inherent belligerent characteristics.
4. **Imperialistic aspirations.** Since conflicts between nations have increased in the last century, as also indicated by frequent military clashes and UN failure to solve ongoing disputes, the world population must unify under an international council that differs from the UN (the UN lost objectiveness and is actually *pasé*) seeking ways to repair the present political chaos, as well as find solutions for a variety of man-born global hazards [(e.g., increased heat; melting of polar ice leading to rise in sea level and water temperature; agricultural and industrial pollutions; destruction of the protecting ozone layer in the atmosphere; obliteration of numerous animal and plant species (Refs. 7-11)], all endangering the existence of humanity. Therefore, the current world division to many nationalities that compete and often fight with one another over economic and religious subjects, is an obstacle in the attempt to guide humanity toward more considerate or rational continuation. Although the cognitive superiority of mankind over all other animals should have incited long time ago intense efforts to protect humanity from extinction, actually almost nothing was done. It seems that despite the growing public understanding of the risks, humanity is being drifted, mostly due to apathy and ignorance, towards a futuristic dead end. Thus, unless unification of mankind and operational global steps are seriously considered, the probability to improve the current threatening situation is slim. Despite the difficulties, the need for a decent international frame caring for the entire world population with better sharing of resources and improved plans of survival, is crucial.
5. **Overuse of resources.** Constant increase in demands for energy and food required to satisfy the ever-growing human population may meet unbearable limits. While alternatives to the depleting fossil energy (oil, Gas, Coal) are constantly developing (Natural sources: wind, waterfalls, ocean waves, sunlight; Chemical sources: hydrogen fuel, nuclear reactions), food production to satisfy the entire world may become '**the main problem**', particularly due to exaggerated exploitation of terrestrial and oceanic resources. Such a shortage may lead to aggressive competitions and future military clashes as already illustrated by the Russian attempts to conquer surrounding countries possessing natural resources (e.g.,

Ukraine), or Trump's aspirations over Venezuela, Mexico, Columbia, and Greenland indicating that the violent struggle over crucial natural reserves has already begun.

6. ***Return of forgotten diseases.*** Although humans dominate Earth and have developed ways to restrict the proliferation of other bothering species (e.g., various flying insects), they are vulnerable to microbiological violence, particularly when not vaccinated. Still, despite the worldwide policy, a few populations refuse to vaccinate and become a source of further infection of vulnerable children. This phenomenon actually restores remnant almost forgotten virulent bacteria or viruses, such as the recent rise in the viral disease, Measles, or the bacterial disease, Pertussis (Whooping Cough).
7. ***Nuclear and biological threats.*** While the human race may be exterminated upon a cosmic catastrophe (e.g., hit by a large asteroid; detrimental radiation wave from deep space), or even a major volcanic eruption, another serious danger emerged recently from putative use of nuclear and biological weapons. Although Putin's and Lavrov's recent threats to use nuclear devices in their war against Ukraine or other European countries, are still theoretical, they may be realized as these leaders approach the political end of their career (Ref. 10). Their threat resembles in some way insane acts by Islamic martyrs (shahids), implying that not only are they ready to sacrifice themselves, they do not care about the detrimental consequences even extinction of humanity ('if I die, I don't care if I take with me the entire world'). Another global risk may arise from laboratory development of deadly microbiological weaponry, such as the Corona virus that was constructed using recombinant DNA techniques (Ref. 13). It is possible that the virus, engineered for military purposes, escaped from the Wuhan laboratory while killing hundreds of thousands worldwide and endangering millions. This problem is still not over as a super-violent mutant may still arise spontaneously or in a military laboratory elsewhere.
8. ***Earth as the only life-supporting planet.*** The present political chaos and increasing risks to humanity, has encouraged S. Hocking to suggest that humanity should develop means for evacuation to another life-supporting planet prior to catastrophic destruction of Earth, or extinction of mankind. Yet, this innovative idea (adopted also by NASA scientists) demands: A target planet with water on surface (enabling life); size and orbital path around a sun-like star (providing similar gravitation as Earth), electromagnetic radiation in wavelengths enabling photosynthesis (light; Ref. 14); oxygen-containing atmosphere (for respiration); and, some sort of protection from detrimental irradiation arriving from its star (like the Van Allen belts in Earth's atmosphere). Thus far, two potential planets that answer in part to these requirements have been identified: Kepler 452b in the Lyra constellation, 1800 light years from Earth, and Kepler 186f in the Cignus constellation, ~500 light years from Earth. Unfortunately, realization of Hocking's 'dream' encounters further unsolved obstacles: Besides the need to develop means for such intergalactic voyage and the time required to adopt to differences in gravitation (affecting our skeleton and muscles) and atmospheric composition (affecting respiration), as well as lack of the protecting layer from detrimental irradiation, an additional putative drawback might be a different microbiological flora unfamiliar to the human immune system (it took millions of years to develop on Earth such a protecting mechanism). Therefore, it

seems that at this stage, mankind inhabitation on another planet remains elusive (Ref. 12).

Concluding Remark: The tremendous advances in scientific lore, technological developments particularly in light of the AI revolution, and comprehensive awareness to the threats of forthcoming global risks, encouraged many in the scientific sector to believe in a ‘Rosy future’ for humanity. In fact, however, it seems that humanity is stepping on a risky path that may lead to extinction. Unfortunately, the present reality and accumulation of enormous global threats (cosmic risks beyond human control, or those provoked by human activity), concomitant to aggressive world leaders ready to sacrifice themselves along with the entire world while thriving to achieve presently their personal or national political or religious aspirations, is highly disappointing, suggesting that the human race may reach a dead end much earlier than anticipated. Notably, scientists who believe that AI will bring prosperity and thus foresee a bright future, ignore the above impediments that endanger human survival. Therefore, although in the next decades, technology will develop to almost unprecedented heights as AI and robotics will become more user-friendly and be routinely applied, the immediate consequences might be quite destructive with a considerable increase in unemployment and in AI-provoked criminal deceits, as already obvious nowadays in ‘stinging’ and fraud activity, mostly in the monitoring system. Other approaching problems are the explosion in world population and future limitations in food and energy supplies. Therefore, without immediate measures to control the approaching existential issues and removal of dangerous leaders from chair (Refs. 10, 11), the future of humanity is NOT promising. Evidently, global catastrophes or world-wars may minimize the world population, but such events are still unthinkable. Non-the-less and despite various humanitarian restrictions, competitions and fights for survival and over reserves would probably intensify and the stronger populations would survive. In such a dark scenario, most technological achievements would either dissipate or be harnessed in the fights, including AI and robotics. If Earth would still enable human life, we can only hope that following a global destruction, man-kind would still survive to begin a more rational evolutionary/developmental process.

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