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GUEST COLUMN

Data centers, climate change and artificial intelligence pose existential threats to civilization

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A commonly heard complaint refers to the unnerving torrent of stressful reports and opinions saturating us with relentless speed through intrusive digital Information Age technology. Multiple issues threaten our peace of mind and quality of life, but due to the perceived importance of each of them, we may turn from one to another without considering their systemic and mutually self-propagating interconnections.

Upon reflection, these interconnections seem self-evident, if not inevitable. Some suspect that they constitute a worsening, interlocked human predicament. Those who study such issues call the amalgamation of these interrelated problems a “meta crisis.”

Consider the complex, mutually disruptive interactions among three dominant issues:

- Artificial Intelligence and the distortion of truth.
- The proliferation of data centers, imposing massive demands on energy and water.
- Climate change and ecosystem degradation.

Some high-tech experts claim that artificial intelligence promises to catapult civilization into an array of utopian breakthroughs – encompassing healthcare, energy technology, manufacturing, transportation, and the end of poverty. Others warn that until accountable safeguards controlling A.I. algorithms can be assured, proceeding to develop the technology exposes us to the risks of self-directed mega-intelligence that could endanger humans by carrying out its own agenda.

Researchers already report instances of experimental AI applications attempting to deceive their creators when those systems recode their own instructions. Conversely, AI’s potential for generating profits is so enticing that voluntarily adopting restrictions seems highly improbable. Furthermore, governmental restraints are being opposed through the substantial political influence and lavish lobbying of the high-tech industry.

Geopolitically, as rival countries compete to gain the edge in so-called national-security systems empowered by A.I., precautionary restrictions will be further opposed. Disruptive algorithms of social networking platforms are raising concerns about disputes being profitably fueled, spreading strife and suspicion that deter consensus by subverting truth. Even at this relatively rudimentary stage, these algorithms are already being condemned as socially and politically divisive.

Data centers, in turn, are needed to support the massive data storage needs of artificial intelligence. As much as 50% of new energy demand by 2030 is expected to be attributable to supporting A.I., and energy consumed by data centers could double by 2028 .

In Georgia, for the foreseeable future, new energy demand is proposed to be met by burning fossil-fuels, releasing massive amounts of heat-trapping emissions that will accelerate climate change. Nationally, it’s estimated that about 40% of energy needed by data centers will be generated by using these dirty fuels. Thus, aside from posing dystopic threats by

going rogue, AI's data-center dependency requires unprecedented amounts of energy, much of which will be produced with fuels that worsen already disastrous climate change.

Despite overwhelmingly conclusive scientific evidence linking the combustion of fossil fuels to accelerating global temperatures, energy policies still reflect Big Oil's political dominance. For instance, fossil-fuel industries continue to receive billions annually in U.S. tax subsidies, while government supports for clean energy (solar, wind, etc.) are being eliminated altogether in the current federal budget proposal, while the president describes climate change as a Chinese hoax. Concurrently, higher temperatures are causing destructive events – flooding, drought, wildfires, premature deaths – that amount to about a trillion dollars annually in the U.S. alone, according to a recent Bloomberg estimate.

Beyond climate change, scientists warn that energy-intensive human activities are using the world's natural resources at a rate exceeding sustainable capacity by about 75%, degrading our environment and causing resource scarcity. By extracting and overloading environmental resources faster than they can be replenished or rebound – if and when possible – the planet's natural capital is being perilously depleted. This menacing problem is reflected in extinction rates, which by most measures are about a thousand times the historic average. Similarly, deforestation, soil erosion, destruction of marine habitat, and water-supply shortages are increasingly being suffered worldwide.

But is technology-accelerated degeneration of civilization inevitable? Several thought-leaders advise that the only remedy is adopting universal self-restraining agreements, citing the 1963 international ban on nuclear weapon testing as an example. However, adopting rigorous global precautions against potentially destructive applications of technology is directly impeded by the current withdrawal from globalization, as the U.S. and other nations shift toward nationalist isolation, migration conflicts, and trade disputes.

The wisdom required to properly administer precautions governing artificial intelligence, environmental stewardship, and information management will demand unparalleled international cooperation on a global scale. Given the rapid pace of efforts advancing A.I. at a time when political conflicts are proliferating and willful negligence of our life-support systems prevails, a monumental transformation in public policies and motives is nothing short of a moral imperative.

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