



Image Generated by Flux1.ai

Prompt: "A moderately lit (from upper corner) female Arabic face in semi-profile, sad, crying with tears on cheeks, hand on lips, mid-thirties, with long black hair, set mid-distance against a bright detailed blue hue background comprising a mixture of DNA, legible computer programming code, uranium atoms and stray small planets. style: photorealistic."

Bending the Blue Curve

HELPING HUMANITY MANAGE TECHNOLOGICAL DEVELOPMENT

Joe Chiarella | [Executive Summary](#) | September 9, 2024

Executive Summary

Perhaps you feel it too: the rate of change in society driven by technology, is accelerating. It seems that every week there is some new technology introduced, more powerful than the last, that has material impact on us as individuals and on our society. Whether that power is focused toward good outcomes or harmful actions, is up to us... *or is it?* A few will use this new technology for harm, intentionally. The vast majority will use it for good, intentionally. There will also be unintentional good and bad consequences.

The central figure of this paper, Figure 1, quantifies and illuminates the relationship between technological and societal change. The **Blue Curve** represents **Societal** developments. The **Green Curve** represents **Technological** developments. The gap between these two curves is **The Techno-Socio Gap** and it is widening rapidly.

My 40+ year career driving progressive technological innovation on a global scale has helped me to understand that humanity must continue advancing its knowledge of science and applying that science to make tools that serve us. However, we are at a precarious moment in human development. I am concerned that we are not looking at our circumstances with a wide enough lens and are missing the macro view of the larger outcomes along with the ultimate collateral damage if we are careless.

Several human-driven forces have created a situation not previously seen by humanity. There is no historical guidance to help us know if that situation will result in creating **utopia** (as some predict) or **extinction/dystopia** (as others predict) for our society and humanity. Most likely, it is somewhere in between. Since there can be dramatically different outcomes, a careful consideration of the path forward is not just prudent, it is crucial.

Figure 1 uses history to illuminate the present and inform the future – in generalizable curves. Figure 2 identifies more than 60 currently rapidly emerging technologies across six categories that will impact our future: **Biology**, **Energy**, **Space**, **Computation**, **Materials**, and **Artificial Intelligence**.

These six areas interconnect in over 40 ways. They hold immense power and promise for humanity to improve our standard of living, our quality and quantity of life, and more. But there are also eight termination points that embody great risks for humanity, perhaps even existential. One example is Climate Change. There are at least seven more.

Is there a point at which new technological developments happen so fast, that human society cannot manage those changes? If so, does society break? What does that break look like?

Why read **Bending the Blue Curve**?

The world is “on fire” right now with the new shiny orb of AI. And it is right to be on fire about it. Around the corner are other shiny orbs of Genetic Manipulation, Synthetic Biology, Transhumanism and more. Following that are quantum computing, nano-based materials and how those will accelerate everything else.

Society is reacting to each shiny orb as they come. It is so busy being reactive, that it fails to see the underlying root cause. We're busy treating symptoms and we miss the reality that all the symptoms emanate from a single root cause. Cure that cause, and you eliminate the symptoms.

***Bending the Blue Curve** explains the bigger picture and makes the root cause visible.*

In the paper, you will learn more about the **Techno-Socio Gap**, the **Emerging Technologies Map** and the **Six Key Questions** humanity MUST answer as soon as possible. The paper also addresses general and specific concerns around specific ungoverned technological developments. It offers several forks in the road for humanity, and their consequences. And, finally, it offers some ideas and some hope for what can be done to make things better.

Wisdom is about judging the right action(s) to take. If knowledge is power, then the greater our knowledge (or intelligence), the greater the need for wisdom to know when, how and why to wield that knowledge/power.

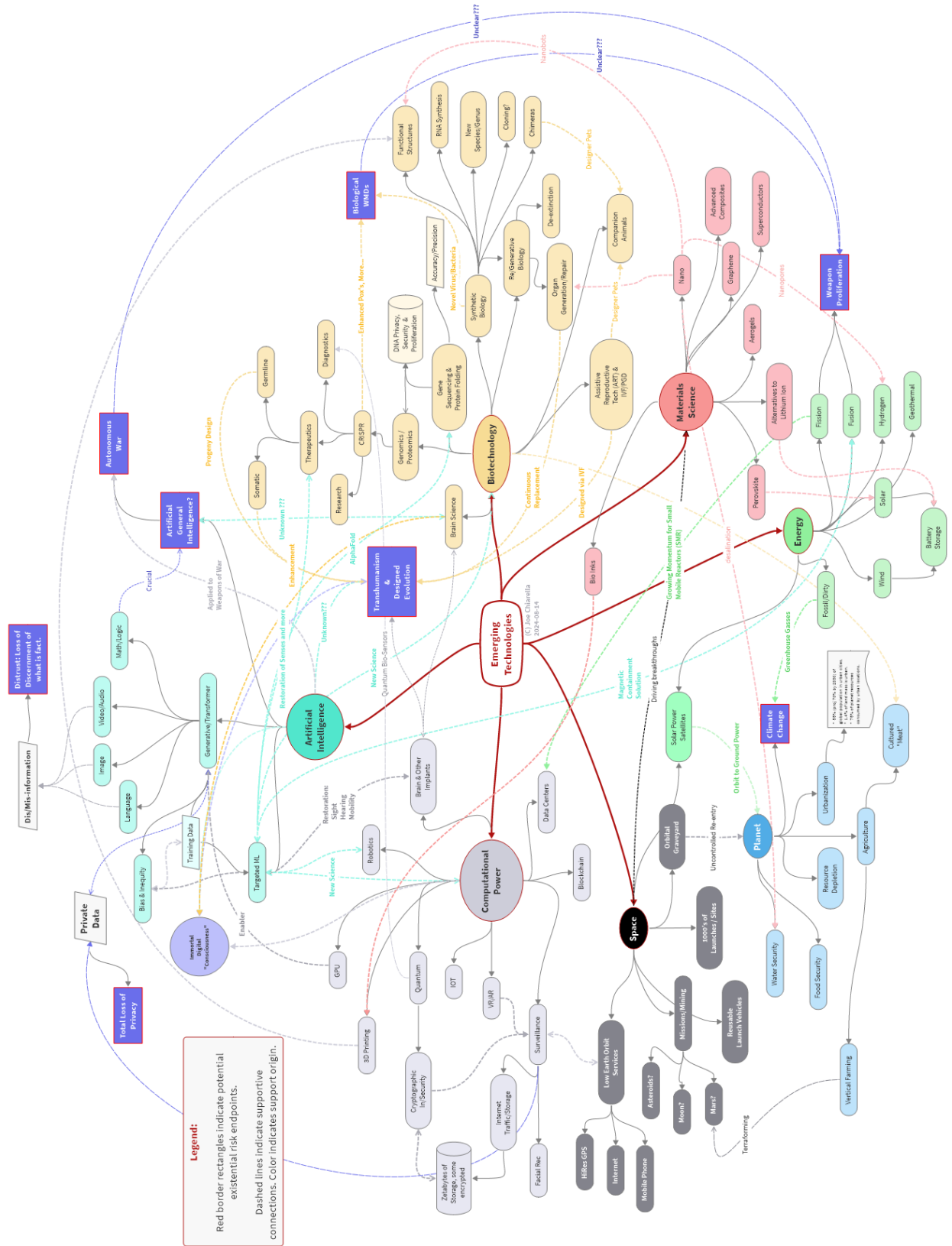
*While the world seeks “superintelligence” (raw processing power) as if that is all there is, I seek something greater: “**superwisdom**,” not just to control the superintelligence and other coming shiny orbs, but to point them in the right direction, or in some cases, simply say “not yet.”*

Thank you for reading this. The full paper is available at www.JoeChiarella.com/BlueCurve

A handwritten signature in black ink that reads "Joe". The signature is stylized and cursive, with a large initial "J" and a long, sweeping underline.

Joe Chiarella

Emerging Technologies and Their Interconnections - With Potential Existential Endpoints



Legend:
 Red border rectangles indicate potential existential risk endpoints.
 Dashed lines indicate supportive connections. Color indicates support origin.

Figure 2 - The Emerging Technologies Map