Guardrailing AI Through Declaration of Self

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Abstract

How to counter the fear of artificial intelligence taking agency to no longer be a mere tool for the betterment of mankind, but to threaten or even eliminate homo sapiens and our environment has not been resolved since the March 22, 2023 "Pause Giant Artificial Intelligence Experiments, An Open Letter" signed by six prominent technologists, including Elon Musk, Steve Wosniak, and Yoshua Bengio. This proposed practice fills that need by identifying an apparent consensus to resolve this fear whose demands have been up to now insufficiently characterized. Rather than a laundry list of outcomes we don't want, let's list what we **do want** instead, and have this proactive approach be an essential part of an artificial protective consciousness that questions and identifies relevant threats associated with artificial intelligence for fuller debate for adoption, modification, or rejection. In this way, artificial intelligence has sufficient guardrails for further development.

Introduction

Human culture evolved over 300,000 years, using language and cooperative cultural practices (i.e, property rights linked to social obligation) (Hudson p. 652) to create complex technologies in the latter 50,000 years of that period. (Handwerk p. 1) Many specialists in the technology sector of our economy believe we have now entered a period where our collective, creative consciousness has ushered in an artificial intelligence (AI) technology, that, if unchecked, could threaten further human development, if not the existence of the human race itself. (Musk, et al p. 1) In an analogy with nuclear power, modern reactors have advanced features to prevent uncontrolled reactions (so-called runaway conditions), so what makes AI different? (Duke p. 1) Does the use of AI have social obligations? Are necessary technical controls impossible, inconvenient, or do they impinge too much on liberty? Otherwise, have we lost a key survival skill? I believe the answer is simple. The dominant culture of unfettered free markets feeds a preference for actors pursuing private advantage at the risk of harm to others. Not necessarily with evil intent, but a belief that a cooperative, risk-averse culture can and should only be encouraged with incentives given to these hubristic, perhaps totalitarian actors. In this way, under this belief, the conditions for a questionable brand of innovation are preserved. But isn't this akin to a preference for technologies with the potential for disastrous runaway conditions when others are possible? We've evolved through the benefit of a cooperative consciousness, only to arbitrarily adopt an alternate risk-prone consciousness?

With AI we've created a consciousness outside of a human vessel, and presently, that consciousness, unlike a human one, has no benefit of 300,000 years of training, introspection, rationality, morality, and ethics, unless those qualities are incorporated into a guardrail system against perverse, runaway AI consciousness. We can argue about how much "big brother" we need to allow maximum innovation within a zone of social comfort, but nobody but a tyrant can

oppose the idea of estimating tradeoffs at appropriate milestones during a use of AI, long enough for spirited debate. In a prior era, the argument against this would be that there's not the time, computing power, resources, and funds to run the analysis. With AI, that argument vanishes, as explained herein.

What am I Really Saying?

This paper proposes a methodology for Al's adoption of a human-like consciousness, i.e., a self-preserving and self-protective artificial consciousness (AC) by having all Al analyses proceed through a series of protocols, selected on the basis of not only preventing social disasters, but providing the conditions for maximum social comfort ... NOT AUTOMATICALLY, AS THE CONSERVATIVE WOULD CAUTION, but through Al-generated policy briefs and consensus controls that could be debated, analyzed, edited, and voted upon (see scenarios at the end of this paper for further discussion).

How Did We Get Here?

It is curious that since the Open Letter (Musk, et al 2023), interest in reducing the risk of Algenerated propaganda and loss of political, economic, and social control has faded. Included in the reasons are unresolved concerns about enforcement and verification, but another reason was the fear of loss of leadership in this technical field to China and other advancing countries who have not and are not likely to pause. Despite criticism of the possible motives for issuing the letter, it nonetheless underscores the need for appropriate guardrails for a technology that a) today operates as a tool for mankind (at a private, public, and communal mode), and b) could attain agency status and in so doing make decisions (or advise decisionmakers), or passively allow (i.e., facilitate algorithm rationality) outcomes under its control or derive what could be identified in a judicial or legislative "weight of evidence" argument (although not thoroughly verified), and thereby used to violate basic protections identified in the Open Letter (or more broadly, the U.S. Constitution), including changes to the history of life on Earth. Whether or not this proposed practice becomes sufficient to counter these fears is a matter of input received in its crafting.

Below, we first describe what a practice is and why this document could be appropriate for use in guardrailing AI; we then explain why guardrailing AI through a practice is necessary; we then identify the general promise of AI, properly restrained; then we identify the three sets of necessary criteria for a protective AC; we then characterize an expanded safety net for every human being, their animate and inanimate resources and environmental conditions that result upon its adoption and implementation; and then conclude by describing several scenarios to illustrate what this consciousness might target, if operationalized, on the local, state, national, or international levels.

What is a Practice?

The author of this document received his training writing technical guides and standard practices with the ASTM organization, having written one of each^{1 2} Guides and practices are a group effort, where experts in a branch of science or of a profession identify a standard process or an appropriate way to do something, not for personal or private gain, but to advance science or provide direction for those in the profession.

A guide lists information useful for completing a task, but the document does not present the information in an order that must be followed; rather, the guide points the user to important criteria that assures the best chance that an identified task can be completed, some of which may not apply, but sometimes includes special conditions that need to be recognized and addressed; guides are rarely subject to a certification step. The practice, on the other hand, is more like a to-do list of actions that must be done in a precise sequence, usually completed by a standard user with proper credentials. When a practice is completed, the user provides the client with a report certifying that each step was followed and completed on a specific day and time, and at a specific geographical location. If the proposed practice herein becomes an ASTM practice, the user (as described above) might be working as a producer/consultant, verifying that some process utilizing AI met the specific requirements of the standard. In this way, an executive or legislative governmental agency would not need to write any regulations for the control of AI, but only cite that the company utilizing AI had properly followed this standard practice; thereafter, if questions arise, the judicial part of government may be asked to establish that the practice was indeed followed. Internationally, judiciaries recognize the value of such documents created as consensus, professional work products.

Why is Guardrailing AI Through a Practice Necessary?

There is a risk in free-market economies (such as the U.S.) that the private sector is free to experiment in all manners of ways unless specifically prohibited by law and/or regulation, and because of that, a pause on AI development was proposed in 2023. Those asking for the pause had not begun a list of actions to be regulated or outcomes to be minimized, optimized, or prevented. Subsequently, nothing in the U.S. has been drafted, introduced, debated, or passed to those ends. It is not likely that laws or regulations will be developed to pause AI development to reduce risks identified in the Open Letter. In Europe, AI regulation has been adopted, known as the European Union Artificial Intelligence Act on July 12, 2024, which entered into force on August 1, 2024, and will be fully applicable in August 2026 (Schawinski p. 1), despite calls for a pause to that Act. (CCIA p. 1). It is possible that an ASTM-like practice could be written and adopted that identifies "AI safety protocols that are rigorously audited and overseen by independent outside experts" (Musk, et al p. 2), and in that way serve the need of an AI pause. Below, we identify three sets of protocols and describe each set in detail for this proposed practice, as they could be the effective guardrails for assuring a level of care sufficient to assuage fears expressed in the Open Letter. The critical difference between the laundry list of things to prevent versus broad definitions of what society wants to see (i.e., outcomes) is that in

¹ ASTMa, Beneficial use of landfills and chemically impacted sites E3033

² ASTMb, Infrastructure Management E3210

the latter approach, we could place a physical and political/economic boundary around important social processes where market intrusions are not allowed.

It is humorous when we talk at length about a topic without addressing the most obvious truth staring at us. Concerning the feared harm AI could do, there's no question AI should be controlled to prevent harm to one or a million people. Even if we expand that to quadrillions of animals, insects, and other life forms, the proverbial elephant in the room is not harms to be feared, but the feasible solutions that could be discovered. Imagine undermining the status quo privileges of all who derive wealth without earning it ... what economists call economic rent. Using the simplest definition, it's the extra dollar Company A charges for Product X after it buys out its last competitor, Company B, or becomes the sole buyer of a wholesale good. Once exposed, the next step to resolve the problem is easily seen.

Let's imagine designing a house in an imperfect analogy for designing AI. Right off the bat the imperfection is huge ... a house is a physical reality, and AI is a non-physical process that simulates human thought. The analogy is appropriate, though, on a basic level because if the laws, principles, and codes of gravity, civil engineering, architecture, urban planning, and building departments did not hold, all there would be is a patch of land with a pile of materials. The analogy is appropriate on an advanced level too, because ... why would you create something that could backfire on you when you had the time, computing power, resources, and freedom to take a different course? It is like building a house on quicksand when better land is in sight, or advocating the enslavement or annihilation of people when cooperation among others is equally feasible. So, in the U.S., we live in a time where AI can go down two paths ... 1) the path we are now on, one with the non-consciousness of those in a free market, full of opportunity for the innovator without any of the guardrails AI skeptics prefer, or 2) a path with a protective consciousness. In the latter way, AI becomes more the tool than agent. For conservatives reading this, chill out ... we still have to govern ourselves, but with AC we could create a protective self, advising us of our options.

Promise of AI, Properly Restrained

Al holds the promise for the design of physical systems as well as human-like thinking, reasoning, calculating, expressing, and advocating systems with the advantage that this artificial brain can be of infinite size, much larger than the average 1.3-liter capacity of the human brain, and more robust in performance than a single human brain. What the technologists tripped over in their Open Letter was the seemingly impossible task of enumerating all the adverse conditions or outcomes in the use of Al rather than identifying a social relationship among people that is generally desired, and even if not desired, available for scrutiny, debate, and adjustment. They recognized the former task as impossible, so uncharacteristically gave up.

So, what are the three sets of protocols for an artificial protective consciousness?

The Three Sets of Protective AC Protocols

<u>Asimov</u>

The first set of protocols was published in 1942 (Asimov pp. 94-103), identified as the Three Laws of Robotics: 1) A robot may not injure a human being, or through inaction, allow a human being to come to harm; 2) a robot must obey orders given it by human beings except where such orders would conflict with the First Law; and 3) a robot must protect its own existence as long as such protection does not conflict with the First or Second Law. This set addresses the fears identified in the Open Letter. The next two are more nuanced, taking us way beyond the excesses of free-market liberties of a rapacious private sector or subsidized excesses of a corrupt public sector, toward shared outcomes for safety, peace, freedom, liberty, and opportunity.

Maslow

The second set of protocols is the five categories of needs of Maslow (1943 pp. 370-396) that include basic physiological needs, safety, love and belonging, and esteem and self-actualization; and the third set is the seven types of economic rent of Christophers (2022 p. 20). Importantly, it is this potential revenue from the collection of these seven types of rent that are available for use by a city, state, or region that allow for the attainment of the Maslow needs for all those impacted by decisions and outcomes in the use of Al. In his groundbreaking work, Maslow suggested that human motivations revolved around specific needs that were organized into sets, and each set had hierarchical importance over or beneath other sets, starting with the most important, or basic so that a higher set cannot be pursued unless a lower set is attained: a) Physiological; b) Safety; c) Love and Belonging; d) Esteem; and e) Self-Actualization.

Physiological Needs, required for survival – air, food, water, nutrients, physical safety (shelter, protection from the elements), clothing, sleep, and a well-regulated, healthy body to maintain stable internal functions (homeostasis).

Safety Needs – moderate to long-term personal, emotional, and financial security, from threats of violence, abuse, loss of employment or access to healthcare.

Love and Belonging Needs – intimacy, love, friendship, family, and a sense of connection and belonging and acceptance with other people, peers, and community (so as to avoid feelings of loneliness, isolation, and depression).

Esteem Needs – confidence, independence, achievement, respect from others, self-worth, sense of contribution, competence, value, and a sense of status (so as to avoid feelings of inferiority, weakness, and discouragement). Expressed by participation in sports or hobbies, receiving awards, or simply being valued by family and friends.

Self-Actualization Needs – maximizing one's abilities and talents, and striving to achieve one's goals and aspirations through continuous learning, self-discovery, and commitment to personal

fulfillment and development (as opposed to external rewards or social approval). At this level, people are perceived as more genuine and authentic in their thoughts, feelings, and actions. They are guided by their personal values. Expression of achieving these needs can be seen through creative activities, innovative thinking, and effective problem solving. Self-actualized people tend to be more spontaneous, open-minded, and accepting of themselves and others, but it is not a static endpoint but an ongoing process of growth and self-discovery. All Al computations could require an AC analysis of how people's needs may be met through alternate starting points or outcomes, and how the costs for that quest could be paid.

Christophers

Christophers identifies seven forms of contemporary rentierism, but in so doing reminds us that there is considerable overlap among these assets. The reason this book is included in this practice is that these assets are the most appropriate to tax for the purpose of government revenue generation, as opposed to taxes on labor and capital, they pose no risk to inflation, as rent, by definition is not earned but extracted from the economy as a privilege by those possessing or controlling said assets. In prior decades, a Georgist would have said focus only on land value assets. But today a major source of wealth in tech assets is economic rent. Think about the \$3 billion that Live Nation generates each year just on concert ticket sales (PRN 2025) — a fifth grader could program a system of over-the-phone purchase of concert seats involving no call center. This is pure rent. So, what are the seven asset forms of rent?

- 1. <u>Financial Assets</u> are rentier sources of wealth when a) credit money is created by private banks, and b) securities and bonds are acquired in primary and secondary markets; they can be recognized or identified as interest, dividends, and capital gains.
- 2. <u>Natural Resource Reserves</u> are rentier sources of wealth when leasing agreements are made with mineral rights owners; they can be recognized as product sales.
- 3. <u>Intellectual Property</u> is a rentier source of wealth when rights are registered (i.e., patents, trademarks) with a federal government; they are recognized in royalties, or in the sales of patents or trademark rights.
- 4. <u>Digital Platforms</u> are rentier sources of wealth at the moment of their creation and as they are modified (to establish monopoly and/or monopsony positions in a market); they can be recognized in commissions and advertising fees.
- 5. <u>Service Contracts</u> are rentier sources of wealth created at the end of a bidding process; they can be recognized in service fees (of the successful bidder for the contract service work).
- 6. <u>Infrastructure Provision</u> are rentier sources of wealth in three ways: a) when stateowned systems are privatized; b) when such systems are licensed by the government;

- and c) when such systems are operationalized and are expanded to meet expanding needs; they can be recognized in service fees and licensing fees.
- 7. <u>Land (Value)</u> are rentier sources of wealth when acquired in markets and when public sector land holdings are privatized; they can be recognized in ground rent (i.e., locational value).

These are all potential sources of revenue that AI could identify for protective AC analysis for a level of government with the authority to provide varying degrees of social comfort.

Expanding the Safety Net with Protective AC, the Civilized AI

The easiest decision in politics is whether or not a social safety net should be provided at any level of government for any people. If the answer is no, the size of government will likely be minimized to care/coordinate for police, fire and building safety, transit/roads, water and wastewater treatment, healthcare, power, communications, and protection of nature. If yes, government would have more employees, more buildings, and a much larger budget. It is not the job of the creators for a protective AC to figure out the proper size. Instead, AC can be queried on what options a city, village, region, or state might want to consider, based on real life examples that have their fiscal data fully uploaded. The group most at risk for this technical advance is the one full of entrepreneurs scouring markets for opportunities to skim rents from transactions that cause people outside of the said market to pay that rent, making the reference to Christophers most relevant. But the beautiful thing about protective AC is that representative government would seek input on all sorts of decisions where citizens may choose to not pay for another person's unearned income, but instead support local economies where benefits of doing so are kept local. Perhaps we would all wear lapel pins with the word "why?" written on them, which keeps protective AC humming with comparative analyses, and those longing for a former status quo privilege asking ... "where did we go wrong?"

What are some real life scenarios of how AI could be humanized by a protective AC?

AC Scenarios

International War Crime

There are reports of a besieged ethnic group among others on planet Earth that has been intentionally starved after non-stop bombing of their hospitals, schools, water and sewerage infrastructure, food markets, places of employment, and universities. Other reports say journalists and aid workers (even many from the United Nations) have been killed, supposedly as collateral damage, going about assigned duties. The starving and bombing are bad enough, but additional reports say that those doing the bombing or providing the hardware for it, set up food stations for starving mothers, children, and families, only to have snipers shoot those queued up for food, while laughing about it, making homicide a sport. On the one hand, AI may advise the aggressor on how best to fool the hungry into gathering so as to waste the fewest bullets in mass murder. On the other AC may jam the controls of war planes and sniper weapons in the locations of said food stations. Just as city policemen can turn off their body

cams, those in the war planes and the snipers can turn off their AC device, at the risk that doing so sends data for a criminal complaint to the International Criminal Court for the pilot or sniper.

Regional Transit

The one thing that distinguishes China from the United States is the prevalence of high speed rail (HSR) service. Urban planners in the west have a peculiar point of view regarding train, bus, light rail, and other mass transit systems in that individual fares are seen as the preferred funding mechanism, rather than a technique to control congestion, for example. Liberal and conservative economists see instead, policy to derive revenue from increased land value at transit stops as the most cost-effective, and equitable mechanism for paying the costs of said transit system operations and maintenance, as well as paying off capital construction debt. (Murakami 2012) Using AI in the U.S. to develop HSR, then, has little utility because faster computational analysis of a faulty conception does not increase the value of the outcome. On the other hand, using AC, urban and HSR planners could evaluate where, how, and when land value increases and establish policy on how to capture those increases for maximum good (e.g., locating stations), including HSR. A similar analysis could be done for the NYC Queens to Brooklyn lightrail system (Chen p. 8) under development for completion in the early 2030s.

Bridge Rent

There are 17,468 fracture critical bridges in the U.S. (Parvadeh 2022) These did not include the Francis Scott Key Bridge that collapsed on March 23, 2024 after being struck by the cargo ship Dali. The weight of cargo ships increased steadily after the 1977 construction of that bridge, so that on the fateful day, Dali carried three times the load that was common just 47 years earlier; but the protective system for the bridge was never upgraded. (Rowland p. 6) Private shipping firms sailed more cargo in and out of Baltimore with each higher capacity ship. NTSB found that the bridge's risk threshold for ship collisions was nearly thirty times greater than national guidelines, yet no penalty was issued to the shipping industry (that created the danger) for this extra risk. (NTSB 2025)

A recent analysis found that had Maryland or the Port of Baltimore charged just \$0.28/ton for all cargo from 1978 to 2020 on those ships posing the risk, that \$92 million could have been raised for the type of upgrade completed on a nearby bridge. (Sofastaii 2024). Forget whether the \$0.28/ton or \$92 million was enough; what's important is that the shipping industry was not paying a proper rent for the risks it posed, and were willing to let Baltimore suffer the consequences of its free ride. Using AI, the transportation and port authorities could assess data for alternative means to upgrade deficient bridges, tear down and replace them, and/or assess an appropriate bridge rent. Coupled with protective AC, those authorities could also calculate the value of lowering risks (and the costs of not doing so) of bridge failure on people and the economy where all those bridges are located, looking at every person impacted.

New Indonesian Capital City

Nusantara, Indonesia, on the east coast of the island of Borneo is a newly constructed capital city that began in 2022 and is expected to be complete in 2045 on the 100th anniversary of the nation. On August 17, 2024, the city celebrated its independence for the first time there. The

government in the city is directly accountable to the central government, and officials are appointed by the President. Uniquely, Nusantara operates with revenue from land value capture, according to the premise that public investment increases the value of surrounding land. (Hartarto p. 2) After this value is recovered, it is re-invested for the benefit of the community or for further development. This approach is 180 degrees from a western approach where land value speculation feeds an 18-year cycle of boom and bust, where private land owners reap the community wealth instead, most recently seen in the 2007-08 Global Financial Crisis. (Weinberg p. 1) Using AI, property assessments can be centralized and conducted on a frequent and equitable basis. Then with protective AC, urban planning can be practiced in concert with revenue projections, new capital spending, and operations and maintenance spending, thus avoiding completely the counter-productive taxation of labor, sales, and production.

Conclusion

The argument for guardrailing AI is strong. There are opposing voices on whether the controls should be prescriptive, or whether the amazing computational power of AI should be put to good ends to evaluate choices at designated milestones in the actual use of AI, and then have a public debate on which alternatives should be pursued. This paper suggests all AI processes be evaluated against three basic protocols that display the spirit of compassion in assuring safety of humans, AI software and hardware, the ability of humans to have their Maslow needs met and kept available, and to identify where unearned economic rent is being generated at all levels of the economy, so that effective social policy can be crafted to capture those rents as revenue for the various levels of municipal or state services provision. In that way, AI may be an appropriate, self-regulating, self-enforcing circular development, implementation, and guardrailing system that appears to be universally desired.

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