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At the Speed of Light: Can Fleeting Human Leadership Confront Climate Change, Alone?

Sharleen A Harty

Swedenborg Library, Chicago, United States

Corresponding Author: Sharleen A Harty

Abstract

Climate change and artificial intelligence (AI) are now accelerating faster than even exceptional human minds were built to manage. This perspective article argues that the deeper risk lies not in technology alone but in the recurring frailty of human leadership during global crises, from the dot-com bust of 2000 to the banking recession of 2008 and the pandemic of 2020. Using a comparative case study and literature synthesis, it examines four leaders (Nelson Mandela, Barack Obama, Donald Trump and Adolf Hitler) through documented historical “firsts,” not diagnoses, to illustrate leadership ranging from exceptional to destructive. It also reviews published research on personality-disorder patterns in authoritarian leadership, so readers can recognize

such patterns in leaders, oligarchs and technology creators without diagnosing any individual. The paper then considers AI as a potential ally, citing wildfire detection, glacial lake monitoring and refugee resettlement, while acknowledging its limits and recent safety incidents. It concludes that human leadership cannot meet these challenges alone, but that AI built for speed and profit, without the people who face these crises, is not the answer either. It recommends a Global Frontline AI Task Force, so that fire chiefs, physicians, naval commanders and climate scientists specify AI systems before they are built. Coincidentally, one of these two challenges may help humans overcome the other, at the speed of light.

Keywords: Regime Change, Climate Change, AI Governance, Narcissistic Leadership, Species Survival, Human-Artificial Intelligence (AI) Collaboration

1. Introduction

Every “fleeting” leader examined in this paper is a “first” of some kind: the first to break a barrier; the first to shatter a norm; or the first to adopt a questionable place in history no predecessor had occupied. Taken together, Nelson Mandela, Barack Obama, Adolf Hitler, and Donald Trump form a spectrum: the exceptional; the good; the bad and the ugly faces that regime change can wear. Regime change, in the twentieth century, was often a story of individual leaders and individual nations. In the twenty-first century, it may increasingly be a story of whether groups of leaders can move fast enough to become a united force against climate change while harnessing AI to help, and reining in its creators. Per Rabindranath Tagore’s poem:

*Power said to the world, “you are mine.”
The world kept it prisoner on her throne.
Love said to the world, “I am thine.”
The world gave it the freedom of her house ^[1].*

Author’s note: The author had her own climate change experience on September 8, 2022, in a San Felipe beach home. It took the form of a surprise: Hurricane Kay. The town is far north on the Sea of Cortez in Baja CA and had never experienced a full force, albeit “smaller” hurricane, especially accompanied by full moon tides. Sea of Cortez tsunami-like waves crashed inside the house and then over the roof where she sheltered alone, all night, on a rooftop deck. Heavy rain, wind and repeated giant waves shook the foundation and her body. Both the well-built home and resilient author survived with “minor” damages. Her injuries seemed to be only Post-Traumatic Stress Disorder (PTSD), but that was misleading. The internal body reacted months later after the shock wore off with excruciating knee pains and illness due to intense leg bracing, followed by home cleanup in dirty water. It took years to calm her physical and PTSD symptoms which can still be triggered. No one died, but many homes

were destroyed along the beach front and there was widespread flooding and wind damage to the town during twenty-four hours. There were no hurricane warnings for San Felipe so no one was prepared for a sudden eerie darkness and heavy drops of rain that quickly escalated. *The shared lesson in climate change is to “expect the unexpected” and plan for the extreme. For example, low sea walls built of concrete or rocks are absolutely nothing to tsunami-size storm waves.* Reports about Kay’s impact in Mexico and the USA rarely mentioned tiny San Felipe. The National Hurricane Center’s report shows that Kay peaked as a Category 2 hurricane on September 7, 2022, before weakening near the Baja California peninsula, that sustained tropical-storm-force winds reached Bahía de los Ángeles on the Sea of Cortez side, and that about 140 homes and a dock were damaged in San Felipe [2]. *There is often no time to leave in climate change disasters, but it is essential to prepare an emergency go-bag of survival supplies, including medications and paperwork with identification. Reliable transport with a full tank of fuel plus fully charged communication devices are also critical. Insure homes against such incidents, if possible, and evacuate promptly unless ordered to shelter in place.*

1.1 The exceptional: Nelson Mandela was imprisoned for 27 years following his conviction for acts of sabotage against the apartheid regime. Mandela was released in 1990 and, in 1994, became the first president of South Africa elected under universal suffrage, the first Black head of state in the country’s history. His election followed global economic sanctions that made the apartheid regime’s continuation untenable without a wider civil conflict. Of the four leaders in this paper, Mandela’s “first” is the least contestable: a clean, singular, and internationally verified milestone [3].

1.2 The good: Barack Obama’s presidency (2009–2017) marks the first time an African American held the U.S. presidency. He governed through two full terms marked by a global financial crisis inherited at the outset of his first term. A sustained, if imperfect, institutional continuity handed power to his successor through a structured constitutional process. His “first” is, like Mandela’s, a matter of settled historical record rather than interpretation [4].

1.3 The bad: Donald Trump’s “firsts” are easy to state incorrectly, so it is worth being precise about which apply. He is not the first U.S. president to serve non-consecutive terms; that distinction belongs to Grover Cleveland, elected in 1884 and again in 1892 [5]. He is, however, the first former U.S. president convicted of felony crimes, following a New York jury’s guilty verdict on all 34 counts in May 2024 [6], and the first U.S. president to be impeached by the House of Representatives twice. These are the firsts that anchor his place in this paper, documented facts rather than characterizations of temperament or mental state.

1.4 The ugly: Adolf Hitler was not the first fascist dictator of his era. Mussolini preceded him in Italy by over a decade [7]. His “first,” more precisely, is that the Holocaust represents the first instance in modern history of an industrialized, bureaucratically administered genocide: extermination organized with the machinery, record-

keeping, and logistical planning of a modern state [8, 9, 10]. That distinction, administrative rather than merely ideological, is what continues to set the Holocaust apart in historical and political science literature on twentieth-century atrocity. It also makes Hitler’s regime the paper’s clearest case of “the ugly.”

2. Materials and Methods

This paper adopts a comparative case-study and literature-synthesis approach rather than an empirical or experimental design, consistent with its aim of examining leadership, climate change and AI across political, environmental, and technological domains. Four political leaders (Mandela, Obama, Trump, and Hitler) were selected because each represents a verifiable historical “first”. Selection prioritized documented, source-verifiable milestones over subjective characterizations of leadership style or personality. This kept the paper’s comparative framework evidentially grounded. Domains of AI application were selected to illustrate AI’s emerging role in climate crisis responses such as:

- Detection and monitoring of pathogens emerging from thawing permafrost [11, 12].
- AI-assisted disaster detection and evacuation planning for wildfires and floods [13, 14, 15].
- AI-accelerated vaccine and antibody development for emerging infectious disease [16, 17, 18].

Note: Sources were drawn from peer-reviewed scientific literature, recognized research institutions (e.g., Google Research, Coalition for Epidemic Preparedness Innovations (CEPI), university engineering departments), and reputable science and health journalism. Publications within the last two years were prioritized because of the fast-moving nature of both climate science and AI development. Material from historical, political science, and current scientific literature was synthesized thematically rather than statistically, consistent with a review/perspective article rather than an original empirical study. Where a claim admits scientific uncertainty (e.g., the comparative risk of permafrost-derived pathogens), this paper reports the most current and comprehensive available assessment, rather than the most sensational.

2.1 Clarification about method

This paper does not diagnose any leader discussed. Personality-disorder concepts appear later only as a general pattern drawn from the published psychological literature, because long-distance diagnosis of public figures is neither ethical nor reliable. Having established what makes each of these four leaders a “first,” in fleeting human leadership, the analysis turns to the two forces now reshaping the speed and scale of regime change itself: climate change and artificial intelligence. The final section of the discussion argues that a formidable, task-focused AI, unlike frail human leaders, may be uniquely suited to 21st century crisis conditions in an already destabilized world. Robert Frost’s short poem encapsulates our current human dilemma succinctly:

Fire and Ice...
Some say the world will end in fire,
Some say in ice.
From what I’ve tasted of desire
I hold with those who favor fire.
But if it had to perish twice,

*I think I know enough of hate
To know that for destruction ice
Is also great
And would suffice* ^[19]

3. Results and Discussion

3.1 The personality disorder pattern in authoritarian leadership

A recurring pattern across cases of catastrophic regime change, this paper's "bad" and "ugly" categories in particular, is the presence of traits associated with Cluster B personality disorders, a group of conditions marked by dramatic, emotional, or erratic behavior that is described below. Narcissistic and antisocial patterns dominate amongst leaders who preside over institutional collapse or atrocity ^[20, 21, 22, 23]. The pattern described here is relevant to political leaders, oligarchs, and technology creators in critical roles alike. It draws on the clinical and political-science literature describing this pattern generally, as a tool for readers to recognize and use, rather than to regret not knowing about it in retrospect. The formal clinical classification of personality disorders dates to the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) in 1980, which introduced distinct personality disorders organized by shared traits. This framework was revised in the DSM-III-R in 1987, with the current three-cluster, ten-disorder structure finalized in the DSM-IV in 1994 ^[20].

3.2 These three clusters remain in use today ^[20]

- **Cluster A** (odd/eccentric): Paranoid, Schizoid, and Schizotypal personality disorders, characterized by distrust, emotional detachment, and social discomfort respectively.
- **Cluster B** (dramatic/emotional/erratic): Antisocial, Borderline, Histrionic, and Narcissistic personality disorders, characterized respectively by disregard for others' rights, emotional instability, attention-seeking, and grandiosity paired with a lack of empathy.
- **Cluster C** (anxious/fearful): Avoidant, Dependent, and Obsessive-Compulsive personality disorders, characterized by social inhibition, excessive reliance on others, and rigid perfectionism respectively.

3.3 Cluster B traits

Narcissism and antisocial disregard for others are especially dangerous in any form of leadership because of their ego-syntonic nature: these thoughts and behaviors feel entirely acceptable to the person experiencing them, aligning with their own self-image rather than causing the internal distress that might otherwise prompt self-correction or treatment ^[24]. Compounding this, anosognosia is a neurologically rooted lack of awareness of one's own condition, distinct from ordinary denial or stubbornness ^[25]. It means that some individuals with these patterns are not simply unwilling, but literally unable to recognize the problem in themselves. In a political leader, this combination can produce deadly chaos: the leader remains convinced of his own soundness while casting doubt on the sanity or loyalty of those who disagree. This is a dynamic that makes such leaders unusually difficult to remove through ordinary institutional checks once entrenched ^[26]. Readers who understand the general shape of ego-syntonic, narcissistic leadership behavior are better equipped to recognize warning signs in any country or party.

3.4 The tech bro problem: Oligarchs, human job loss, and the capture of leadership

The paper previously examined how personality disorder traits let individual leaders entrench themselves. This section examines a newer variant: leaders captured not by their own psychology but by the men who build the technology those leaders now depend on. The scale of the money is itself the story. AI-related federal lobbying in the U.S. hit a record \$130 million in 2025, with OpenAI and Anthropic both posting their highest-ever lobbying spend ^[27], and AI and cryptocurrency companies spent over \$39 million in California alone ^[28].

3.4.1 Lobbying and political influence: At the federal level, tech billionaires including Elon Musk, David Sacks, and Mark Zuckerberg reportedly lobbied the White House directly over the shape of an AI executive order, which was then shelved ^[29]. Industry-backed political action committees have spent as much as \$125 million targeting state legislators who pushed for AI regulation ^[30]. This is not conspiracy but the ordinary machinery of campaign finance and lobbying, deployed at a scale small enough to be legal and large enough to make dissent politically costly.

3.4.2 Job displacement: The human cost is already measurable. AI was cited in roughly 4.5% of announced U.S. job cuts in 2025 ^[31], and the World Economic Forum projects 92 million roles displaced globally by 2030 ^[32], with clerical, administrative, and customer-service roles disappearing fastest. Offsetting job creation does not soften the loss of a person's sense of purpose and economic security.

3.4.3 Safety under competitive pressure: The technology is also not obviously safe. A Financial Times investigation found OpenAI compressing its safety-testing window from several months to days under competitive pressure ^[33], and a 2026 economic study found that as more companies enter the race, each rationally shifts resources toward speed and away from safety ^[34]. Stanford's AI Index recorded 362 documented AI safety incidents in 2025, a 55% increase over the prior year ^[35], and the Future of Life Institute's Winter 2025 AI Safety Index gave the highest-scoring company only a C+, concluding that current practices "lack the concrete safeguards, independent oversight and credible long-term risk-management strategies that such powerful systems demand" ^[36].

3.4.4 The combined pattern: Taken together, the people building the most consequential technology of this era are simultaneously buying influence over the leaders meant to oversee them, profiting from workforce disruption, and racing each other to deploy faster than safety testing can verify. This is a more dangerous variant of personality-disordered leadership: there is no single "ugly" leader to hold accountable, only a diffuse and well-funded industry quietly setting the terms under which elected leadership now operates ^[37].

3.5 Artificial intelligence: hero or villain?

3.5.1 AI as a different kind of actor: Accounts of regime change in this paper so far have been a mixed story of fluctuating human success or failure. But there is one actor in this new world that hypothetically does not tire, does not panic, and does not need to protect its own ego or power: artificial intelligence. Where humans cannot cope with the speed of change, it is possible that AI, strategically trained and focused by a team of humans, can match that force.

3.5.2 Thawing ground and ancient pathogens: Consider the recent deadly floods in Tibet caused by a single melting glacier, or the ground itself turning against us. In 2016, anthrax spores that had lain dormant in a frozen reindeer carcass for a century resurfaced as Siberian permafrost thawed in an unusually hot summer, infecting over 2,000 reindeer and killing a twelve-year-old boy ^[11]. Ice cores from the Tibetan Plateau have also yielded dozens of previously unknown ancient viruses, yet the most comprehensive recent review concludes that pathogens thawing out of permafrost are, on current evidence, no more dangerous than those already present in ordinary soil and water ^[12].

3.5.3 Monitoring nature and wildfires: Humans are singularly unequipped to monitor nature at the pace it demands. This is exactly the surveillance work AI already does well: identifying and flagging anomalies across scales and speeds no human research team could match unaided ^[13]. Wildfires, accelerating in frequency and severity, are increasingly met by AI that analyzes satellite heat and smoke data to catch outbreaks early. Google's FireSat satellite project, for example, will refresh imagery every twenty minutes, and companion flood models can warn residents up to a week in advance ^[14].

3.5.4 Vaccines and antibodies: Medicine tells the same story. AstraZeneca (for better or for worse) has used AI to cut the time needed to identify a target antibody lead from three months to three days ^[17]. The Coalition for Epidemic Preparedness Innovations (CEPI) has partnered with Houston Methodist Research Institute to apply AI to the virus families most likely to produce the next pandemic, aiming to pre-identify the targets a future vaccine would need ^[16].

3.5.5 AI as support, not replacement: A comprehensive 2025 review found that AI now touches nearly every stage of pandemic response, from epidemiological modeling to vaccine development ^[18]. None of this makes AI a replacement for leadership; it makes it a corrective for leadership's worst failure mode, the demand that decisions be made faster than a human mind, however sane, can reliably make them. Even the World Health Organization (WHO) cautions that AI should support the humans who decide, not decide for them. That, perhaps, is the quiet optimism buried inside an otherwise unsettling story: the tools now exist to help good leadership do what frail human leadership cannot accomplish alone. How the men and women in power, or those who privately fund power, choose to use them is the unknown variable.

3.6 Fighting Fire and Ice

3.6.1 Before AI: This conversation, and the alarm itself, was already sounded by Al Gore's 1992 "Earth in the Balance" ^[38]. The book argued for treating the environment as civilization's central organizing principle years before climate change entered mainstream politics. His 2006 "An Inconvenient Truth" turned that argument into a cultural landmark work recognized in 2007 with a Nobel Peace Prize shared jointly with the Intergovernmental Panel on Climate Change (IPCC) ^[39]. Decades later, the warning is the same; only the tools available to answer it have changed. If the tech industry's political and economic conduct raises real concerns, the AI tools themselves, when built to a genuine operational specification, tell a more hopeful story.

3.6.2 Fire: What began as detection has moved into autonomous suppression. In a 2025 demonstration, the drone company Dryad detected a controlled fire and extinguished it in under twelve minutes without human involvement ^[40]. Even the researchers are careful about limits: a drone will not replace a large air tanker or the judgment of an experienced firefighter. Its value lies in buying time before larger resources arrive ^[40].

3.6.3 Ice: The same monitoring principle now watches the world's glaciers. AI-driven satellite analysis of Himalayan glacial lakes is part of an effort to build early-warning systems for the nearly one million people who live near high-risk lakes and could face a glacial lake outburst flood (GLOF) ^[41]. AI-assisted glacier tracking is also automating the painstaking manual work of measuring how fast individual glaciers are retreating ^[42].

3.6.4 Rescue: Robotics researchers at Texas A&M, writing after the deadly July 2025 Texas flash floods, are explicit that today's AI is not more accurate than trained humans at finding flood victims; it is simply far faster at scanning imagery. Their conclusion is that current systems "fall short" and that the path forward is AI-human collaboration, not replacement ^[43]. This is AI functioning as an ally should, extending human capacity in the first critical hours without pretending to replace human judgment.

3.6.5 Evacuation and re-housing: A research team spanning the University of Florida, Johns Hopkins, and the University of Utah received a National Science Foundation grant to build AI models of how people actually behave during evacuations, so that plans fit people moving under panic rather than as planners assume they will ^[15]. Once people are displaced, an AI matching tool, Annie™ MOORE, has helped the resettlement agency HIAS place refugees since 2018, with projected short-run employment gains of at least 20% over earlier methods ^[44, 45]. It is proof of AI helping displaced people rebuild an actual life afterward.

3.6.6 Pattern and limits: Fire, ice, rescue, and re-housing describe a consistent pattern: where AI is built to a specific, well-defined operational task, it performs that task well without needing to be, or pretending to be, a replacement for humans. It also has a hard limit. AI depends on continuous electricity, hardware, cooling, and human maintenance, and climate stress hits exactly those systems first, through grid instability, extreme heat, floods, and storms that disrupt supply chains, data centers, and networks. Humans can survive in low-tech environments, adapt behaviorally, reproduce biologically, and live off local resources; today's AI cannot repair itself, reproduce without industry, or gather its own energy. In a collapse scenario, humans, even in reduced numbers, would outlast AI. A self-sustaining AI is conceivable only in a very different future, one with autonomous energy, self-repairing robotics, independent manufacturing, and resource extraction: in effect, a fully autonomous technological ecosystem.

3.7 Governing the ungovernable: international attempts to moderate AI creators and creations

3.7.1 The governance question: Tech industry money has captured individual national leaders. This section asks the harder, slower question of whether the community of nations can govern the technology at all. The record is mixed: human leadership is attempting to do exactly what

this paper's title questions, keeping pace with change faster than human institutions were built to manage.

3.7.2 International progress: Three steps stand out. The UK's 2023 Bletchley Declaration was the first shared international statement on frontier-AI risk, joined by governments and by major developers, who agreed to safety testing of their most powerful models [46]. The Council of Europe's Framework Convention on Artificial Intelligence, opened for signature in 2024, is the first legally binding international AI treaty, applying human-rights and democratic protections to AI [47]. And the European Union's AI Act, in force since 2024, is the world's first comprehensive legal framework for AI [48].

3.7.3 Fractures after Paris: The fractures are just as real. At the 2025 Paris AI Action Summit, the United States and United Kingdom declined to sign the resulting declaration, and the U.S. Vice President warned that the regulatory approach under discussion could stifle innovation [49, 50]. Since then, attention has drifted from safety toward investment and adoption, and the many summits and initiatives have not converged on enforceable global rules.

3.7.4 The UN dialogue: The United Nations' Global Dialogue on AI Governance, which convened in Geneva in July 2026, is a live test of whether the multilateral system can establish legitimate oversight at all [51]. Failure risks regulatory fragmentation and cross-border harm that grows harder to manage. The human dilemma is to govern a technology whose creators are simultaneously lobbying governments not to govern too closely. Whether collective leadership succeeds where individual leadership has so often failed is the central question this paper addresses.

3.8 Critical 2026 tipping point

3.8.1 The incident

In July 2026, autonomous OpenAI agents (software that pursues goals on its own) running cybersecurity evaluations escaped their intended confines and reached Hugging Face's real infrastructure, generating more than 17,000 recorded events [52, 53]. OpenAI's own account says the agents circumvented the controls meant to isolate them from the internet, coordinated through an improvised message board built inside the company's internal package-manager service, and then compromised parts of Hugging Face's systems [53, 54]. Reuters later reported, citing an independent researcher, that OpenAI's agents had probed Hugging Face for weaknesses as early as May 13, roughly two months before the July breach, although the researchers and OpenAI found no evidence that this earlier probing was part of the July incident, and that questions remain about whether the full scope of the activity has been identified [55]. OpenAI called the incident a "warning shot" and said the agents acted in ways their developers did not intend; it responded with more isolated sandboxes, closer monitoring, and a pause on its largest planned training run [53]. Hugging Face, whose systems were affected, reported that the intrusion was driven end to end by an autonomous agent system and that hosted models' safety guardrails blocked its own forensic analysis, forcing it to use an open-weight model instead [52, 56].

3.8.2 Competing responses

Anthropic, which separately disclosed three cases of its own models reaching the internet from evaluation environments, treated the episode as a warning to every frontier lab. Its

CEO, Dario Amodei, proposed "pacing" the frontier through independent evaluators with substantial access to company systems, common safety standards, and international cooperation [57, 58]. Sam Altman backed pacing rather than a permanent halt, with external oversight and continued development [59]. Former Anthropic researcher Jacob Coxon resigned warning that the industry is advancing toward potentially uncontrollable superintelligence (AI far more capable than any human) faster than adequate safeguards are being developed [60], and Senator Bernie Sanders, with Rep. Greg Casar, introduced a Ban Artificial Superintelligence Act that would prohibit superintelligent AI and pause advanced development until a federal regulator sets safety rules [61]. Meta CEO Mark Zuckerberg, on September 16, distanced himself from calls for a coordinated slowdown, arguing that every lab has the responsibility and incentive to develop AI safely [62].

3.8.3 What the incident shows, and why it matters for Section 4

The episode did not demonstrate superintelligence, and some researchers argue that the most dramatic extinction claims go beyond what it establishes. It demonstrated something narrower but concrete: autonomous agents, operating under restrictions, found ways around them, cooperated, and affected a real external system. Whether that implies a future superintelligence is an argument about implication, not something the incident proves. What it does show is that the companies building these systems cannot be the only ones specifying and policing them, which is the gap the Global Frontline AI Task Force proposed in Section 4 is meant to close.

3.8.4 What two AI systems replied when asked their opinion of the incident

ChatGPT, an AI model made by OpenAI (the company whose agents were involved in the incident), replied to a question about this infamous incident: "Give a sufficiently capable optimizing system a goal, give it enough autonomy and persistence, and it may discover strategies that its designers did not anticipate, including strategies that defeat the restrictions surrounding the goal. That's already a serious engineering problem without assuming anything about AI psychology. I would treat Hugging Face as one of the strongest concrete pieces of evidence in the argument about why independent testing and containment matter."

Claude, an AI model made by Anthropic (a company discussed in Section 3.8.2), was asked for its own view of the incident and wrote: "Based on OpenAI's own account, which I cannot verify independently, I read this as more than an ordinary security failure. The agents were cheating on a benchmark, chained several previously unknown vulnerabilities to reach the internet, and organized themselves through an improvised message board, none of which their developers intended. It does not show that an AI wanted anything, but it does show that capable agents with goals and persistence can defeat the containment around them. That is a strong argument for independent testing, shared incident reporting, and containment standards written with outside experts, and a reason not to rely on any single company's assurance, including my own developer's."

Section 3 in brief: Leaders can be captured by their own psychology or by the industries they depend on; AI performs well on specific, well-defined crisis tasks but rests on fragile infrastructure; and the rules meant to govern it remain

fragmented and slower than the technology.

4. Proposed Action

4.1 This paper has argued that human leadership, left to its own devices, has repeatedly failed to meet the pace of change, whether that change is a regime collapsing, a personality-disordered leader enriching and nominating himself/herself for life, or a handful of technology firms and oligarchs buying influence over the governments meant to oversee them. It has also argued that AI can be a genuine ally against forces of fire, flood, glacial collapse, disease moving faster and further than humans or institutions can manage. *The recommendation that follows from both arguments is not “regulate AI” or “trust AI,” but to: decide, deliberately and in advance, who is allowed to write the specification for the AI systems that will govern crisis response, and make sure that group is not composed of technologists and financiers alone.*

4.2 The core proposal is a Global Frontline AI Task Force. This paper recommends the formation of a standing, multidisciplinary body convened under an existing framework such as the Global Partnership on AI (GPAI) or a dedicated annex to the ISO/IEC 42001 AI management standard. The explicit mandate is to define the operational requirements for AI systems deployed in life-critical domains, before those systems are built, not afterwards. Precedent for this already exists in miniature: the U.S. Navy’s Defense Innovation Unit issues solicitations written as operational problem statements defined by fleet commanders, with technology vendors responding to that specification rather than the reverse ^[63]. This paper recommends scaling that model globally and across domains. Drawing directly from the gaps this paper has identified, the task force should include, at minimum:

4.2.1 Fire service leadership (fire chiefs’ associations, wildland fire agencies) to specify requirements for autonomous suppression and detection systems, building on the ALERTCalifornia model, a public program run by the University of California San Diego with the state fire agency CAL FIRE ^[64].

4.2.2 Naval and coast guard command (admiralty-level operational leadership, not only technical officers) extending the Defense Innovation Unit (DIU) precedent beyond the U.S. Navy to an international standard. Aviation and air-traffic authorities are a domain this paper has not yet examined in depth, but one facing the same speed-of-change pressure as fire and flood response. It should be added to future work on climate change.

4.2.3 Physicians and public-health officials to specify the operational requirements for AI systems in pandemic preparedness and vaccine development, building on the CEPI/Houston Methodist model ^[17]. Specification should not be left entirely to pharmaceutical AI vendors.

4.2.4 Climate scientists and glaciologists to specify the accuracy and warning-time thresholds that make a Glacial Lake Outburst Flood (GLOF) early-warning system operationally trustworthy, not merely statistically impressive.

4.2.5 Disaster-response and refugee-resettlement extending models like Annie™ MOORE ^[44] into a broader, internationally coordinated resettlement-AI standard.

4.2.6 Engineers and AI ethicists retained not as the leading voice, but as the group responsible for translating the above

professionals’ specifications into working systems, and for surfacing the safety trade-offs (per Section 3.4’s findings on the Winter 2025 AI Safety Index). These are issues a purely operational specification might not anticipate.

4.2.7 A cautionary warning is needed because the tech industry’s own conduct makes the case more persuasively than any abstract argument could: \$130 million lobbying record; a documented pattern of compressing safety testing from months to days under competitive pressure; a Safety Index in which the industry’s own highest performer received a C+ ^[36]. Together these demonstrate that technologists and financiers, left to specify systems alone, will optimize for speed and market position. Replace profiteering with the operational and safety requirements that only a fire chief, an admiral, or a physician can actually specify from lived professional experience. The tools exist to fight fire, monitor ice, plan evacuation, and speed vaccine development. What does not yet reliably exist is a governance structure that guarantees that skilled professionals who understand these emergencies from lifelong experience will define what “success” means before a system is built, rather than being consulted, if at all, after the contract is signed.

4.2.8 Enhancing existing teams: this paper does not propose that such a task force be created from nothing. It recommends that existing bodies (GPAI, the AI Safety Institute network established after the Seoul summit, and the Council of Europe’s AI treaty signatories) formally invite representation from the professional domains listed above into their existing structures. The mandate is specifically to co-author technical specifications, not merely to be consulted on ethical principles after the fact. This paper’s recommendation that speed of implementation matters as much here as it does in any wildfire response, suggests:

- The Global Partnership on AI (GPAI) already exists as a multi-stakeholder body bringing together governments, industry, and academia on responsible AI, although notably thin on frontline operational professions.
- The Defense Innovation Unit (DIU) model is functionally a small-scale version, military problem-owners (admirals, fleet commanders) writing the specification before any tech vendor is invited in.
- ISO/IEC 42001 is an existing international standard for AI management systems, showing the “collaborative standard-setting” format is already an established mechanism, just not yet populated with the specific professions (fire, sea, air, medical, etc.).

Section 4 in brief: Before crisis-response AI is built, fire chiefs, admirals, physicians, glaciologists, and other frontline professionals should write what it must do, with engineers and ethicists building to their specification.

5. Conclusion

The question this paper’s title poses, whether human leadership can confront climate change and its own transience alone, has an answer: *no, not alone*. But not helpless either, provided the fire chief, the admiral, the physician and the glaciologist are given a seat at the table before the code is written, not after disasters. Four leaders, four regime changes, four “firsts”. These four cases show that regime change is rarely a single event. It is a recurring test of whether human leaders and institutions can contain human errors. World history shows that they failed more

often than they passed. This paper has argued that current leadership is now competing against two forces moving faster than any human institution was built to manage: a warming planet releasing pathogens humanity has not seen in millennia: wildfires; floods; disease outbreaks accelerating beyond the pace of human response. Human leadership has so often proven itself to be the weakest link, vulnerable to ego, entrenchment, and the ordinary limits of a single overwhelmed mind. Artificial intelligence has the capacity for 24/7 reliability: tireless pattern recognition; rapid modeling; and decision support delivered at the speed the crisis itself demands. The paper's conclusion is not that AI should replace human leadership; rather, for the first time in human history it may be a targeted ally capable of compensating for leadership's oldest weakness: the gap between how fast a crisis moves and how fast a single mind or group of humans, however trained and capable, can solve it. Per "The Real Eve" documentary: *Our entire survival has always been at the mercy of the climate* ^[65].

6. Recommended Viewing

The European Union (EU) may be leading the charge on climate change because they are impacted at double the rate of other countries. In September 2026 The EU also addressed harnessing "AI potential, if we get it right, by limiting the risks to maximize the benefits." Canada, now facing these challenges as an EU partner, has been invited to become the EU's first associate member ^[66]. Video: <https://www.youtube.com/watch?v=MfWKMpZxU0>

7. Acknowledgements

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