Available online at http://cadmusjournal.org/
Cadmus
Promoting Leadership in Thought that Leads to Action
Volume 5, Issue 6 - August 2026

Imagining the Future as an Act of Responsibility

Grant Schreiber
General Manager, World Academy of Art & Science

Abstract

Arthur C. Clarke's legacy extends well beyond science fiction. As a Fellow of the World Academy of Art and Science (WAAS), Clarke embodied the transdisciplinary thinking that lies at the heart of the Academy's founding vision: that humanity's survival depends on aligning scientific power with ethical imagination. This article traces the intellectual convergence between Clarke's worldview and WAAS's mission, from his early self-education through the British Interplanetary Society to his landmark 1964 BBC Horizon interview, in which he accurately predicted remote work, telemedicine, and machine intelligence decades before they became reality. Clarke's method—combining satellite physics, human behavior, economics, and philosophy simultaneously—offers a working model of the integrative thinking WAAS was created to cultivate. The article also examines Clarke's role as a civilizational catalyst: his short story "Dial F for Frankenstein" helped inspire the World Wide Web, and his 2001 NewsPad anticipated the tablet computer by forty years. Clarke's insistence that advanced technology without ethical grounding risks becoming "indistinguishable from magic"—opaque and unaccountable—remains urgently relevant as humanity navigates artificial intelligence. His synthesis of realism, optimism, and moral seriousness continues to inform the Academy's work today.

Arthur C. Clarke liked to say that the future was not something to be predicted, but something to be enabled.[1]

That conviction ran through his life as a science fiction writer, a scientific thinker, and as a Fellow of the World Academy of Art and Science (WAAS). His relationship with the Academy was not incidental or ceremonial. It reflected a deep convergence between his worldview and WAAS's founding vision: that humanity's survival and progress depend on aligning scientific power with ethical imagination and global responsibility.

For Clarke, the real frontier was not outer space, but human consciousness.

Clarke was born in 1917 in rural England, a setting that gave him an early fascination with the night sky and a sense of wonder unencumbered by disciplinary boundaries. Growing up on a farm in Somerset, he enjoyed stargazing, fossil collecting, and reading American science fiction pulp magazines. This combination—natural science, deep time (fossils), and speculative fiction—wired his brain early to move across disciplines rather than settle into one. He never saw science and imagination as separate domains.[2]

Clarke came to transdisciplinary thinking not through privilege but through necessity. Unable to afford formal higher education,[3] he joined the British Interplanetary Society in 1934,[4] a small, ambitious collective united by the belief that humans would one day leave Earth and explore the universe. There is an irony worth noting: the very lack of a formal education may have been Clarke's greatest intellectual advantage. Universities teach mastery of the known; the British Interplanetary Society was only interested in the unknown.

Transdisciplinary thought has been a hallmark of WAAS since its inception and Clarke embodied exactly the kind of boundary-crossing intellectual spirit the organization was built to cultivate.

As a radar specialist during World War II, he experienced firsthand how scientific advances could reshape the fate of nations. That experience left him with a lifelong awareness of science as a moral force—capable of extraordinary liberation, but also immense destruction if divorced from wisdom.

This tension became the engine of his writing. From *Childhood's End* to *2001: A Space Odyssey*, Clarke explored futures in which technological progress forced humanity to confront its own psychological, ethical, and spiritual limitations. His stories rarely celebrated technology for its own sake. Instead, they treated it as a mirror, reflecting the maturity—or immaturity—of the civilization wielding it. For Clarke, the real frontier was not outer space, but human consciousness.[5]

In a 1964 *BBC Horizon* interview filmed at the New York World's Fair he tackled the challenge of predicting the future—noting that accurate predictions either sound too conservative or too absurd to be believed. His most compelling visions came precisely from connecting dots across fields rather than speculating within any single one. Transdisciplinary thought has been a hallmark of WAAS since its inception and Clarke embodied exactly the kind of boundary-crossing intellectual spirit the organization was built to cultivate.[6]

In the *BBC* interview, Clarke argued that advances in transistors and communication satellites would make physical cities obsolete. By around the year 2000, he predicted people would conduct business from anywhere on Earth—Tahiti, Bali—as easily as from London. Rather than commute, people would communicate, traveling only for pleasure. He even envisioned remote surgery, with doctors in Edinburgh operating on patients in New Zealand. His insights did not come from urban planning or telecommunications alone. They emerged from combining satellite technology, transistor physics, human behavior, and economic logic simultaneously. A transdisciplinary thinker does not ask "what will this technology do?" They ask, "what happens when these five things collide?"

He predicted that machines would surpass human intelligence entirely, calling the computers of his day "complete morons" that would soon learn to out-think their makers. He viewed this not as depressing, but as humanity serving as "stepping stones to higher things."

The greatest imaginative leaps do not always land in a finished product. They simply change what people believe is possible.

He envisioned machines that record information directly onto the brain, allowing people to learn a language overnight. The invention of suspended animation—possibly through deep-freezing—would let people sleep through centuries to reach a future cure for their illness or enable long-distance space travel.

Clarke also describes his ultimate invention: a "replicator" that duplicates any physical object, which could end scarcity—though he worried that it might plunge society into "gluttonous barbarism." While 3D printing and modern manufacturing have yet to lead to abundance,[7] his idea was immediately tempered with reflection: "What would this do to society? Would abundance destroy us? Could humans psychologically adapt?" By pulling in sociology, economics, and philosophy, he avoided the trap of pure techno-optimism. Futures thinking without the humanities tends to produce gadgets without consequences. It is one of the reasons WAAS shows up each year at CES—the world's largest tech event—not to marvel at the next shiny gadget, but to ask the (sometimes uncomfortable) question no one else in the room is asking: Why?

Clarke's combination of insight and fantasy married to ethical constraint placed him naturally within the orbit of WAAS when it was founded in 1960. WAAS emerged in the shadow of the atomic age, created by scientists, artists, and thinkers who had witnessed how breakthroughs in physics had outpaced humanity's capacity for governance, ethics, and foresight. Founding figures of the World Academy such as Albert Einstein, Robert Oppenheimer, and Joseph Rotblat understood that the old silos of knowledge were no longer viable.[8] Clarke shared this conviction instinctively. His work had long argued that the future would demand integrated thinking—where science, ethics, culture, and imagination were in constant dialogue. Today, with AI tools at our disposal, anyone can run a dozen unrelated tasks at once in pursuit of a solution. We have all, somewhat inadvertently, become polymaths.

There's an inclination for people to credit individuals with new inventions and innovations but there is less awareness around the role of the catalyst—the spark that accelerates change—not the source of the reaction itself. While Clarke can certainly claim many world-firsts, his ideas rippled outward and inspired many others to create world-changing innovations.

Sir Tim Berners-Lee counts among his inspirations for inventing the World Wide Web a short story by Clarke called "Dial F for Frankenstein."[9] The 1964 story envisioned a world where telephone lines, stretched across the globe in an endless web, suddenly awaken—

behaving like a newborn discovering its own limbs, and in that discovery becoming self-aware and controlling, bringing civilization to its knees. A single curious mind can see over the horizon. But a room full of curious minds, thinking together across every field and discipline, can help build a bridge to get there.

When one person shares an idea, they are not just transmitting information; they are handing someone else a new lens with which to view a problem.

Clarke and Stanley Kubrick imagined the iPad forty years before it existed in their film *2001: A Space Odyssey*—with Clarke calling it a "NewsPad."[10] Whether or not Steve Jobs consciously drew from the film to inspire his Apple iPad decades later, the idea had already been planted in the culture. The greatest imaginative leaps do not always land in a finished product. They simply change what people believe is possible, opening the door for others to pick up the torch and carry it further than the originator ever could.

The best ideas sometimes do not come from the smartest person in the room. They come from unexpected conversations between people who might usually have no reason to speak to each other or even work in the same field. The role of catalyst continues in the work of WAAS today. In March 2026, WAAS hosted a meeting in Baku, Azerbaijan to determine the roots of global turbulence and seek solutions.[11] The group of 45 attendees included former heads of state, scientists, medical doctors, business executives, academics, financiers and a candidate for the role of the next UN Secretary-General.

When one person shares an idea, they are not just transmitting information; they are handing someone else a new lens with which to view a problem. The listener filters that idea through their own entirely different set of experiences, knowledge, and problems. The result is not a copy of the original idea—it is a mutation, that is often more interesting than what started it.

Clarke did not approach science fiction as escapism, but as a serious tool for civilizational reflection. In this sense, his novels functioned much like WAAS itself: as thought experiments designed to stretch human perception beyond short-term interests and national boundaries. Clarke's famous assertion that "any sufficiently advanced technology is indistinguishable from magic"[12] was not merely a clever aphorism. It was a warning. Without understanding and ethical grounding, advanced science risks becoming opaque, unaccountable, and dangerously mythic.

We are already seeing skepticism around what technology promises us today, not only through logical and rational arguments but also through a deep human instinct. People may not be able to articulate exactly what feels wrong—but they feel it. And that feeling is not ignorance or misunderstanding. It is wisdom. It is our natural human instinct probing an idea to ensure that human values remain the compass by which we navigate our future. Much like

a virus mutates over time to ensure survival, so too has humanity evolved to survive. We currently find ourselves between recognizing how technology and AI can improve our lives and a natural skepticism of how it might harm us. How we chart the future lies somewhere in between.

Because technology, left to its own momentum, does not choose—it is leaders who determine whether the tools we build become instruments of flourishing or engines of harm.

Clarke's worldview also reinforced the Academy's global perspective. Long before globalization became a common term, he rejected parochial nationalism. His decision to settle in Sri Lanka was not simply personal; it symbolized his belief that the future of humanity could not be narrated from a single cultural or geopolitical center. WAAS similarly positioned itself as a global institution, committed to planetary challenges rather than national agendas—with Fellows in 90 countries ensuring that its worldview is as wide as the problems it seeks to solve. Both Clarke and the World Academy recognized that existential risks—nuclear weapons, environmental degradation, unchecked technological power—do not respect borders.

Perhaps most importantly, Clarke helped legitimize imagination as a necessary partner to science. WAAS was founded on the radical idea that artists and humanists must stand alongside scientists in shaping the future. His career offered living proof of that premise. His fiction anticipated satellite communications, space stations, and artificial intelligence not because he was guessing wildly, but because he understood how human intention interacts with scientific possibility. He demonstrated that imagination, when disciplined by knowledge, can be a form of foresight. He saw distance between unrelated fields as a creative resource. Some of Clarke's most imaginative leaps, such as suspended animation, applied to both medical treatment and space travel. This happened because he refused to keep concepts in their original domain.

This synthesis of realism and optimism has deeply influenced the Academy's tone from the start. Clarke was not naïve about humanity's flaws. Many of his stories end not in triumph, but in transformation—sometimes unsettling, sometimes ambiguous. Nowhere is this more visible than in *2001: A Space Odyssey*—where humanity's greatest technological achievement and its most existential threat arrive in the same story. The ending offers not resolution, but metamorphosis. There are still lessons here today as we imagine our collective future with artificial intelligence. Our biggest question right now is, "What will we become?"

Clarke believed that intelligence, on its own, was not enough—but that an enlightened intelligence, one that had truly reckoned with the consequences of its own power, would ultimately choose to cooperate rather than destroy. Hope, for Clarke, was not naïvety. It was a bet that the better instincts of a wise civilization would triumph. WAAS has adopted a similar posture: clear-eyed about risks, but committed to the belief that conscious, values-

driven leadership can redirect the trajectory of civilization. Because technology, left to its own momentum, does not choose—it is leaders who determine whether the tools we build become instruments of flourishing or engines of harm.

In retrospect, Clarke's relationship with the World Academy of Art and Science feels inevitable. Both emerged from the same historical reckoning: that humanity had acquired godlike powers without godlike wisdom. Both sought to expand the time horizon of decision-making, urging society to think in centuries rather than quarters, in planetary terms rather than local, short-term advantage. And both insisted that the future is not a technical problem alone, but a human one. Transdisciplinary thinkers treat ideas as portable. A solution developed in one field is raw material for a problem in another. This has been the foundation of human innovation, invention and progress for thousands of years. Breakthroughs in many fields have begun with a simple idea: "I wonder what will happen if I apply this to that?"

Clarke once wrote that "the goal of the future is full unemployment, so we can play."[13] Beneath the light-heartedness lay a serious proposition: that the purpose of progress is not endless productivity, but the flowering of human potential. That idea—humane, expansive, and quietly radical—continues to echo in the vision of the World Academy of Art and Science. Through Clarke's influence, the Academy inherited not just a science fiction writer, but a guide to imagining futures worthy of our intelligence. As human beings we are infinitely adaptable, and the future will be far more than just a bigger version of the present—it will be fundamentally different. But in essence, that is what being human is about—a restless, unrelenting drive to imagine what does not yet exist, and then build it.

Author's Contact Information
Email: grant@worldacademy.org

References

1. This phrase is widely attributed to Clarke and closely reflects the spirit of Clarke's essay "Hazards of Prophecy: The Failure of Imagination," in *Profiles of the Future* (rev. ed., Harper & Row, 1973), as well as numerous recorded interviews. Where a direct citation cannot be confirmed, it is cited here as a well-attested paraphrase.
2. For Clarke's early life in Somerset, see Arthur C. Clarke, *Astounding Days: A Science Fictional Autobiography* (London: Gollancz, 1989). The standard biography is Neil McAleer, *Arthur C. Clarke: The Authorized Biography* (Chicago: Contemporary Books, 1992).
3. A note on Clarke's formal education: while he could not pursue a university degree before the war owing to financial constraints, Clarke was awarded a first-class B.Sc. in physics and mathematics from King's College London in 1948, funded by a government grant for returning servicemen. The characterization of him as largely self-taught therefore applies to his formative intellectual years, 1934–1941. See McAleer, *Arthur C. Clarke: The Authorized Biography*, 42.
4. Clarke joined the British Interplanetary Society in 1934 and served as Chairman in 1946–47 and again in 1950–53. See McAleer, *Arthur C. Clarke: The Authorized Biography*, 18–22. The BIS remains active today at www.bis-space.com.
5. Arthur C. Clarke, *Childhood's End* (New York: Ballantine Books, 1953); Arthur C. Clarke, *2001: A Space Odyssey* (New York: New American Library, 1968).
6. Arthur C. Clarke, interview on *BBC Horizon*, "Horizon: How the World Will Look in 50 Years," filmed at the 1964 New York World's Fair, broadcast 1964. Available at https://www.youtube.com/watch?v=YwELr8ir9qM. All subsequent references to Clarke's specific predictions (notes 7–10) are drawn from this source.
7. For an overview of digital fabrication and open-source hardware as a partial realization of Clarke's replicator concept, see Neil Gershenfeld, *Fab: The Coming Revolution on Your Desktop—from Personal Computers to Personal Fabrication* (New York: Basic Books, 2005). The RepRap open-source 3D printing project (reprap.org) also offers a relevant case study.

8. Albert Einstein and Bertrand Russell were among the early intellectual architects of what became WAAS, though Einstein died in 1955, five years before the Academy's formal founding in 1960 and was added as a "Posthumous Charter Member." Robert Oppenheimer and Joseph Rotblat were active in early discussions.

9. Tim Berners-Lee discusses the influence of Clarke's story in Tim Berners-Lee (with Mark Fischetti), *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web* (New York: HarperCollins, 1999), 4.

10. The "NewsPad" appears in Clarke's, *2001: A Space Odyssey*, Chapter 9. In 2011, Samsung cited the scene in legal proceedings against Apple to argue that the iPad concept was pre-existing prior art; see *Apple Inc. v. Samsung Electronics Co.,* No. 11-cv-01846 (N.D. Cal., 2011).

11. The March 2026 WAAS Baku meeting is documented in internal WAAS records. A summary report is forthcoming. The author attended as General Manager of WAAS.

12. Clarke's Third Law: "Any sufficiently advanced technology is indistinguishable from magic." First published in Arthur C. Clarke, "Hazards of Prophecy: The Failure of Imagination," in *Profiles of the Future: An Enquiry into the Limits of the Possible* (rev. ed., New York: Harper & Row, 1973), 21. The three laws are listed in full in the same chapter.

13. The attribution of this remark to Clarke is consistent across multiple sources and frequently quoted from his essay "Technology and the Limits of Knowledge" and various interview transcripts. Researchers may consult the Arthur C. Clarke Archive at the Smithsonian Institution's National Air and Space Museum.