When the Machine Stops: What a 1909 Book Can Teach Us About Technocracy and Human Agency in the Age of AI

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Edward Morgan Forster's The Machine Stops (1909) is a dystopian tale about a future society that lives entirely underground, dependent on a vast technological system simply called "The Machine." People inhabit isolated cells where all their material and intellectual needs are met through mechanical provision. As all forms of social organization are technology-mediated, face-to-face contact is rarely sought and often discouraged. Travel across the Earth's surface is forbidden, as direct experience of the world has come to be seen as dangerous and unnecessary.

The story centers on the relationship between Vashti, an ideal typical citizen of the society who fully embraces the Machine's authority, and her son Kuno, who rebels against it. Kuno summons Vashti to visit him in person, an unusual and arduous journey within this society, and pleads with her to recognize that life under the Machine has drained humanity of vitality, freedom, and dignity. Their conversation is tense and painful: Vashti defends the Machine as the guarantor of civilization, while Kuno insists that human beings are losing the very capacity to live without it. Vashti listens to her son's story but considers the implications of his rebellion to be unthinkable, akin to dangerous madness. She dismisses his perspective and returns to her part of the world. The narrative then traces the fate of this civilization, culminating in the collapse of the Machine and the helpless destruction of the population that had become entirely dependent on it, as witnessed by Vashti and Kuno.

Forster's story reads less as a cautionary tale about malfunctioning machinery than as a meditation on political order in technological societies. Few texts speak to our present as uncannily as The Machine Stops. Written in 1909, long before Orwell's 1984 or Huxley's Brave New World, Forster sketched a world where human life is entirely mediated by technology, where dependence on an all-encompassing system erodes freedom, intimacy, and ultimately democracy itself. In many ways, he anticipated not only the better-known dystopias of the twentieth century, but also our own contemporary struggles with AI, surveillance, and technocratic governance. As today's debates on artificial intelligence oscillate between promises of rapid progress and fears of domination, Forster's little book feels less like speculative fiction and more like a guide to understanding the tensions our societies now face: how to live, think, and decide for ourselves in a world increasingly ordered by machines.

It is interesting to understand what Forster's story can bring new to our current debates on democracy and AI. In the story, the vocabulary of democracy such as participation, dissent and freedom, has been rendered obsolete. The Machine is not merely a socio-technical apparatus; it is culture, creed, and the very constitution of humankind. It governs not only by habituating citizens into passive compliance or replacing deliberation with doctrine, but by shaping humanity itself—becoming a hybrid condition of our species, a new stage in the Darwinian trajectory of evolution, where technological adaptation supplants natural selection and defines the future of mankind.

From such standpoint, Forster's story also speaks directly to a century of sociological and scientific inquiry into the role of technology in shaping society. Scholars such as Jacques Ellul, Langdon Winner, and Shoshana Zuboff—alongside many in science and technology studies—have shown that technologies are not neutral tools but deeply social systems that organize behavior, embed power, and reshape cultural meanings. What Forster anticipated with startling clarity is precisely this—the tendency of technical systems to evolve into comprehensive frameworks of order, prescribing not just what people do but how they live, relate, and even imagine freedom. However, The Machine Stops is much more than a prescient allegory with anticipatory value. The text proposes a profound meditation on technocracy as a condition of life itself, reaching beyond social and cultural constructs to probe its intimate entanglement with some of humanity's most fundamental experiences: faith, intimacy, birth, and death.

By capturing the interaction between Vashti and her son Kuno, Forster underscores the role of immediate experience and agency in sustaining human freedom. Forster describes a society governed not only by rules and institutions but by a profound reorientation of the senses. The Machine shapes how people move, perceive, and even tolerate the presence of others. In this, Forster anticipates a profound democratic concern: without embodied agency, without citizens who encounter one another in vulnerability and plurality, democracy itself atrophies. AI systems that structure human interaction by curating what we see, hear, and value risk turning citizenship into

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an unrecognizable, narrowing what counts as experience and choice.

When Vashti undertakes the unusual journey to visit her son, she is confronted by elements of the world her society has repressed, such as movement, touch, smell and the proximity of strangers. These are no longer mundane aspects of life but sources of unease. The simple fact of walking toward an airship, of being glanced at by fellow passengers, is experienced as destabilizing. Even the accidental dropping of a book unsettles travelers who have exited the comfort zones of their "cells", because such irregularities cannot be absorbed within the seamlessly mediated environment to which they are accustomed. In this way, the fear of direct experience becomes a mode of social organization, as powerful as law or ritual: it defines what counts as comfort, as security, as the proper boundary between self and world.

Forster emphasizes that this estrangement is not only circumstantial but institutionalized as cultural progress. The very desire to "look direct at things," he notes, once existed but had been overcome. "*When the air-ships had been built, the desire to look direct at things still lingered in the world. Hence the extraordinary number of skylights and windows, and the proportionate discomfort to those who were civilized and refined.*" (p.8). Even a sliver of dawn filtering into Vashti's cabin is disturbing, a reminder that light, air, and nature no longer belong to civilization. To encounter the world directly has become regressive, a mark of backwardness against the "natural progress" achieved through the Machine.

The same holds for human contact, whether visual or physical. Embodiment is no longer the ground of human solidarity but a breach of social order. When one passenger instinctively helps another from falling, she is reprimanded: "'*How dare you!' exclaimed the passenger. 'You forget yourself!' The woman was confused, and apologized for not having let her fall. People never touched one another. The custom had become obsolete, owing to the Machine.*" (p.9)

Most striking is the ritualized denial of the Earth's landscapes, which the Machine's passengers glimpse only to disavow. "*Those mountains to the right — let me show you them… They were once called the Roof of the World, those mountains*." (p.9). But Vashti and others respond only with formulaic praise which they repeat endlessly: *"How we have advanced, thanks to the Machine!"* When asked about the *"white stuff in the cracks,"* Vashti cannot remember the word for snow. A similar gesture repeats as she hides Greece, the cradle of democracy, behind a blind, whispering: *"No ideas here."* (p.10). Through this immemorable journey, Forster suggests how, with time, technology mediation can reduce nature and history to meaningless fragments, stripped of connection, then actively erased. In such setting, technocratic progress is affirmed in chorus, even as the very capacity to recognize what has been lost disintegrates.

This same principle governs knowledge. In one of the story's most mordant passages, a lecturer warns his students: "Beware of first-hand ideas!" exclaimed one of the most advanced of them. "First-hand ideas do not really exist. They are but the physical impressions produced by love and fear, and on this gross foundation who could erect a philosophy? Let your ideas be second-hand, and if possible tenth-hand, for then they will be far removed from that disturbing element — direct observation. Do not learn anything about this subject of mine — the French Revolution. Learn instead what I think that Enicharmon thought Urizen thought Gutch thought Ho-Yung thought Chi-Bo-Sing thought Lafcadio Hearn thought Carlyle thought Mirabeau said about the French Revolution. Through the medium of these ten great minds, the blood that was shed at Paris and the windows that were broken at Versailles will be clarified to an idea which you may employ most profitably in your daily lives".(p.18) Thus, Knowledge is celebrated precisely when it has been filtered through layer upon layer of commentary, until even the French Revolution can be known only as a purified abstraction: "a generation absolutely colourless, a generation 'seraphically free / From taint of personality,' which will see the French Revolution not as it happened, nor as they would like it to have happened, but as it would have happened, had it taken place in the days of the Machine."(p.19).

The echo with contemporary debates about AI is unmistakable. Generative systems, trained on vast corpora of pre-existing texts, excel at producing second- and tenth-hand syntheses, but often at the cost of flattening difference and erasing the unruly vitality of experience. Like Forster's Machine, they risk transforming knowledge into a seamless circuit of processed information, endlessly recombined but increasingly detached from lived reality. The danger, Forster suggests, is not just epistemic but political: when citizens defer to machine-generated interpretations, democratic deliberation gives way to technocratic mediation. The authority of "first-hand ideas" is lost, and with it, the plural, contested, embodied experiences on which democracy depends.

In stark contrast to the tightly mediated and ritualized society of the Machine, the encounter between Vashti and her son Kuno stands as an anomaly—a liminal event that breaches the carefully maintained boundaries of an almost forbidden order: that of kinship. Their meeting exposes the fragility of human connection in a world

dominated by technological authority, revealing the residue of intimacy, emotion, and bodily presence that the Machine cannot fully erase. In this sense, their interaction is not merely personal but profoundly subversive, a fleeting rupture in a system that has sought to regulate and ultimately replace the fundamental ties of family. Yet, they are also living proof that authentic human connection has become impossible in the age of The Machine.

The two live on opposite sides of the world. Vashti is content with her life, which, like most inhabitants of Foster's society, she spends producing and endlessly discussing second-hand 'ideas'. She enjoys talking to friends but uses her work to defend herself against their invitations to be more social, remaining in her 'room' where all her basic needs are met. Her son Kuno, however, is passionate, free spirited and a rebel. Kuno insists that true life requires risk, exposure, and the unpredictability of direct encounter—precisely the elements the Machine eradicates. His rebellion is not only against mediated existence but against the very redefinition of the human that the Machine enforces.

If *The Machine Stops* is a meditation on technology, it is also unmistakably a meditation on faith. Forster shows us how the suppression of transcendence, myth, and religion does not abolish humanity's inclination to worship but redirects it. The Machine becomes the object of veneration, first silently and then explicitly, as its followers transform its technical operations into sacred ritual. As Forster explains, "*The second great development was the re-establishment of religion. (…) Those who had long worshipped silently, now began to talk. They described the strange feeling of peace that came over them when they handled the Book of the Machine, the pleasure that it was to repeat certain numerals out of it… the ecstasy of touching a button, however unimportant*." What had once been considered superstition now re-emerges in mechanical form: the Machine is omnipotent, eternal, the giver of life and meaning. "*The Machine*," they exclaimed, "*feeds us and clothes us and houses us; through it we speak to one another, through it we see one another, in it we have our being*." (p.19). The rhetoric of progress merges with the language of gratitude: "*Night and day, wind and storm, tide and earthquake, impeded man no longer. He had harnessed Leviathan. All the old literature, with its praise of Nature, and its fear of Nature, rang false as the prattle of a child*." (p.7).

Vashti herself embodies this faith. Again and again, she praises the Machine's perfection, and finds its sameness more consoling than her son's physical presence: "She might well declare that the visit [paid to Kuno] was superfluous. The buttons, the knobs, the reading-desk with the Book, the temperature, the atmosphere, the illumination—all were exactly the same. And if Kuno himself, flesh of her flesh, stood close beside her at last, what profit was there in that?" In this passage, Forster warns us that even human intimacy pales before the reassurance of ritual repetition, as the tactile familiarity of buttons and books may win against the intimacy of a mother-son conversation.

Here Forster reveals something crucial: the Machine's authority is not only technical but spiritual. Citizens no longer worship gods, but they worship nonetheless, and this worship is more totalizing precisely because it masquerades as rationality. The Machine is celebrated as "the enemy of superstition," even as it becomes the object of a new superstition. This displacement of religion into technocracy resonates with contemporary debates on AI. The rhetoric surrounding artificial intelligence often echoes theological registers: AI is cast as an omniscient system, capable of feeding, guiding, and even "knowing" us better than we know ourselves. Yet the political consequences of such faith are profound. To worship the Machine—or to treat AI as destiny—is to remove it from the realm of contestation. What is worshipped cannot be debated; what is sacred cannot be challenged. In Forster's dystopia, the Book of the Machine replaces civic discourse, becoming a scripture of encoded rules. In our own time, algorithmic systems risk acquiring a similar aura of inevitability, presented as neutral and objective while silently displacing the plural, embodied, and conflictual practices that sustain democratic life. Forster's insight is thus not only cultural but constitutional: once technology becomes an object of worship, democracy has already given way to technocracy.

In sum, what Forster anticipated more than a century ago —long before debates about technology and society had even begun to interest scholars—is the insight that sociotechnical change is first and foremost a revolution within us: a hybrid force that gradually and imperceptibly transforms who we are, reshaping our desires, perceptions, and very modes of being, rather than merely imposing an external regime of social control.

Noteworthy, in the world of the Machine, the material and the spiritual are no longer distinct: they coincide and dissolve into the apparatus itself, which becomes at once provider, environment, and destiny. This is above all a bodily experience—one of immediate gratification and long-term security, but also of isolation and impotence. Kuno, in his dialogue with his mother, seeks to unsettle this habitual order by introducing doubt, uncertainty, and the embodied critique.

At first, Vashti insists that her son's restlessness is "contrary to the spirit of the age." When Kuno asks, "Do

you mean by that, contrary to the Machine?" her silence and sudden sense of loneliness reveal how unthinkable such separation has become. Loneliness itself is now a rare and abnormal emotion: the Machine has "isolated" it from ordinary life. To be outside is to be "homeless," and homelessness is defined as death. "I have been threatened with Homelessness," said Kuno. She looked at him now." I have been threatened with Homelessness, and I could not tell you such a thing through the Machine." Homelessness means death. The victim is exposed to the air, which kills him."I have been outside since I spoke to you last. The tremendous thing has happened, and they have discovered me." (p.10)

At this point the reader, like Vashti, assumes the threat is simply that he went outside. But Forster slowly discloses the true scandal: not the act of leaving, but the way it was done. Vashti protests: *"It is perfectly legal, perfectly mechanical, to visit the surface of the earth … one simply summons a respirator and gets an Egression-permit."* Kuno interrupts: *"I did not get an Egression-permit."* She presses him: *"Then how did you get out?"* His answer unsettles her world: *"I found out a way of my own."*

Here Forster pauses on Vashti's inability to comprehend: *"The phrase conveyed no meaning to her, and he had to repeat it. 'A way of your own?' she whispered. 'But that would be wrong.'"* The transgression is revealed not as movement through space but as movement beyond control—the discovery of "a way of one's own." For Vashti, this is irreligious, shocking beyond measure. *"You are beginning to worship the Machine," Kuno says coldly. "You think it irreligious of me to have found out a way of my own."* (p.11)

This slow unmasking shows how deeply the Machine has redefined freedom, religion, and even morality. The suppression of movement is not the main issue; what must be eliminated is vitality itself, the possibility of unpredictable forms of life.

By showing the impossibility of movement in the characters' relation Forster's narrative is uncompromising about the irreversible consequences of technological progress. The Machine does not simply fail; it reshapes humanity into creatures incapable of feeling, thinking and living without it. In democratic terms, this suggests a point of no return: once agency is fully ceded to technological infrastructures, it may not be recoverable.

It is important to notice, however, that his sense of irremediableness is an intimate human experience whereby man gradually loses the habit of first-hand sensations and inquiries. From such standpoint, the human-machine hybridity is conveyed as a prosthetic relationship marked by a gradual and irremediable depotentiation of human vitality and agency.

The theme of vitality merits closer attention, as it occupies a central role in Forster's work. As Forster explains: "By these days it was a demerit to be muscular. Each infant was examined at birth, and all who promised undue strength were destroyed. Humanitarians may protest, but it would have been no true kindness to let an athlete live; he would never have been happy in that state of life to which the Machine had called him; he would have yearned for trees to climb, rivers to bathe in, meadows and hills against which he might measure his body. Man must be adapted to his surroundings, must he not? In the dawn of the world our weakly must be exposed on Mount Taygetus, in its twilight our strong will suffer euthanasia, that the Machine may progress, that the Machine may progress, that the Machine may progress eternally." (p.11). In this way, Forster dramatizes how technological order does not merely constrain action but reclassifies spontaneity as sin, strength as weakness, and freedom as irreligion. Kuno's rebellion terrifies not because of what he did, but because it exposes the possibility of doing otherwise.

As Kuno explains, the crucial transformation is not the one wrought by technological progress on the social, geographical, or cultural topography of human civilization, but the very transformation of humanity as a species—mediated through its capacity to perceive, move, and interact with these topographies. The shift is therefore not an external imposition, as often depicted in science fiction where advanced machines become literal cages for humanity. Rather, it is a subtler, alienating evolution: the senses and bodies of men have gradually dulled, leaving only faint traces of how space and time once "felt." In the narrative, these traces are interpreted either as the proper experience of being alive, according to Kuno, or as a misalignment with life itself, according to his mother.

Kuno's reflections underscore the centrality of the bodily, lived experience of the world: "You know that we have lost the sense of space. We say 'space is annihilated,' but we have annihilated not space, but the sense thereof. We have lost a part of ourselves. I determined to recover it, and I began by walking up and down the platform of the railway outside my room. Up and down, until I was tired, and so did recapture the meaning of 'Near' and 'Far.' 'Near' is a place to which I can get quickly on my feet, not a place to which the train or the air-ship will take me quickly. 'Far' is a place to which I cannot get quickly on my feet; the vomitory is 'far,' though I could be there in thirty-eight seconds by summoning the train. Man is the measure. That was my first lesson. Man's feet are the measure for distance, his hands are the measure for ownership, his body is the measure for all that is lovable and desirable and strong. Then I went further: it was then

that I called to you for the first time, and you would not come." (p.11-12).

"She shook her head and said: "Don't. Don't talk of these terrible things. You make me miserable. You are throwing civilization away." "But I had got back the sense of space and a man cannot rest then. I determined to get in at the hole and climb the shaft. And so I exercised my arms. Day after day I went through ridiculous movements, until my flesh ached, and I could hang by my hands and hold the pillow of my bed outstretched for many minutes. Then I summoned a respirator, and started" (p.12-13).

Here, Forster suggests that the path to regaining agency lies in retraining the dormant senses, awakening idled muscles, and inviting vitality to flow back into the body. "*Finding one's own way*" is not merely a metaphor for rebellion; it is an embodied, perceptual act that restores humanity's intrinsic capacity to measure, judge, and inhabit the world on its own terms. The following passage evokes man's difficult condition at the crossroads of a past no longer possible, and a suffocating present.

"I felt that humanity existed, and that it existed without clothes. How can I possibly explain this? It was naked, humanity seemed naked, and all these tubes and buttons and machineries neither came into the world with us, nor will they follow us out, nor do they matter supremely while we are here. Had I been strong, I would have torn off every garment I had, and gone out into the outer air unswaddled. But this is not for me, nor perhaps for my generation. I climbed with my respirator and my hygienic clothes and my dietetic tabloids! Better thus than not at all." (p.13)

After this dramatic confession, Vashti and Kuno part, and their brief encounter becomes bracketed in space and time, exerting no tangible impact on Vashti's daily life. She resumes her routines, never thinking of her son, never seeking him out.

Yet one day they meet again, and the seeds of their conversation are stirred to life by an enigmatic phrase that Kuno whispers to his mother unexplained yet resonant: "*The Machine stops*." (p.21). The phrase lingers in Vashti's mind and fills the sterile air of her accommodation. Doubt creeps in, gradually swelling into fear. Forster suggests that the very fear of uncertainty that once compelled humanity to worship the Machine is the same force capable of undermining its dominion. Notably, these cracks appear in the most mundane bodily experiences—sleeping, listening to music—the very rhythms of life the Machine was designed to regulate.

Yet the fear of the unknown proves stronger than any discomfort: humans accept the Machine's flaws, even attributing them to imagined saboteurs. "Time passed, and they resented the defects no longer. The defects had not been remedied, but the human tissues in that latter day had become so subservient, that they readily adapted themselves to every caprice of the Machine. The sigh at the crises of the Brisbane symphony no longer irritated Vashti; she accepted it as part of the melody. The jarring noise, whether in the head or in the wall, was no longer resented by her friend. And so with the mouldy artificial fruit, so with the bath water that began to stink, so with the defective rhymes that the poetry machine had taken to emit. All were bitterly complained of at first and then acquiesced in and forgotten. Things went from bad to worse unchallenged."

Despite all adaptation, something ultimately fractures and one day everything ends. Finally, the Machine collapses, bringing 'civilization' down with it.

"People were crawling about, people were screaming, whimpering, gasping for breath, touching each other, vanishing in the dark, and ever and anon being pushed off the platform on to the live rail. Some were fighting round the electric bells, trying to summon trains which could not be summoned. Others were yelling for Euthanasia or for respirators, or blaspheming the Machine. Others stood at the doors of their cells fearing, like herself, either to stop in them or to leave them. And behind all the uproar was silence — the silence which is the voice of the earth and of the generations who have gone."(p.24)

Kuno comes to Vashti's ruined room which has stopped supplying clean air, medicine, water or food and is in danger of collapse. They physically embrace one another for the first time since his childhood. Before they both perish, they acknowledge that humanity and its connection to the natural world are what truly matters, and that it will fall to the surface-dwellers who still exist to rebuild the human race and to prevent the mistake of the Machine from being repeated.

"She burst into tears. Tears answered her. They wept for humanity, those two, not for themselves. They could not bear that this should be the end. Ere silence was completed their hearts were opened, and they knew what had been important on the earth. Man, the flower of all flesh, the noblest of all creatures visible, man who had once made god in his image, and had mirrored his strength on the constellations, beautiful naked man was dying, strangled in the garments that he had woven." (p.24)