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Several Considerations on Irrationality, Technology, and Literature

Abstract: Technology is usually paired with concepts like *reason*, *instrumental rationality* (Weber), or *technological rationality* (Marcuse). In this article we try to examine different perspectives on both *rationality* and *irrationality* and their relation with technology. A few examples from the British industrial novel, socialist realist literature, and science fiction have been chosen to support our views. The approach draws mainly on the works of several important thinkers of the 20th and 21st centuries in the philosophy of science and technology, critical theory, and neuroscience, such as Lewis Mumford, Jacques Ellul, Max Horkheimer, Theodor W. Adorno, Herbert Marcuse, and Antonio Damasio.
Keywords: Technique; Machine; Megamachine; Instrumental Rationality; Irrationality; Industrial Novel; Socialist Realism; Science-fiction.

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DOI: 10.24193/cechinox.2025.49.11

Rationality and *Its Twin*

Since the installation of the *Age of Reason* (to use Paine's famous choice of words, though with no reference to *deism*), technological progress has commonly been associated with rational thinking. However, Enlightenment's beloved child, the French Revolution, and its main technical invention, *la guillotine*, proved to be anything but rational. Mostly in the last two centuries, the concept of *rationality* has been strongly questioned, with a growing emphasis on the paradoxical rapport it shares with its opposite. It seems that the industrial context of the 20th century, where technology started to permeate many aspects of life, deepened the inherent tension between *rationality* and *irrationality*. This tension became particularly relevant in philosophy (the so-called irrationalism, existentialism, and absurdism), psychology (psychoanalytical theories), politics (the rise of authoritarian and totalitarian ideologies: fascism, Nazism, and communism), and the arts, where the futurist, Dadaist, and surrealist movements were its best embodiments.

When looking at the capabilities of the human mind today, in terms of scientific and technological advancements, we find not only that we are still wearing the

Enlightenment's glasses, but also that we are all economists, as Dan Ariely humorously puts it in the introduction to his book, *Predictably Irrational*: "In economics, this very basic idea, called *rationality,* provides the foundation for economic theories, predictions, and recommendations. From this perspective, and to the extent that we all believe in human rationality, we are all economists"[1]. Even so, this assumption is no longer considered to be entirely true, since behavioural economics nowadays contradicts humanity's stubborn illusion that we are all paragons of rationality, as *rational-choice* theory claimed. After all, *homo economicus*' instrumental rationality (choosing the most efficient means to reach the desired end) might not be as instrumental as Weber believed, although, of all other models (mathematical, scientific, and technological), it is the concept pertaining to economic sciences that imposed its paradigm on the twentieth century.

In *Irrationality: A History of the Dark Side of Reason*, Justin E. H. Smith (Justin Smith-Ruiu), an American-Canadian professor of history and philosophy of science at Université Paris Cité, adds fuel to the matter by bringing the *impossible syllogism* into the mix, an expression borrowed from Lev Tolstoi's *Death of Ivan Ilych* to refer to one's incapacity of conceiving their mortality, an otherwise self-evident outcome of everybody's life. This form of irrational behaviour is responsible for the way in which we are taught to look at life nowadays: "We consider those forms of irrationality that seem to consist, in some way or other, in the denial of our own individual future deaths; we also consider the ways in which this denial at the same time shapes human life and imbues our social existence with value"[2].

Consequently, by invoking Socrates' stance on ageing and death, Smith reminds us of the futility of goal-orientated thinking ("*the default model of rationality nowadays"*) before the certainty of our demise:

> Socrates's original insight concerned not just death, but the aging that leads to it, and was grounded in the awareness that earthly acquisitions, distinctions, and attachments grow increasingly ridiculous as one ages. The measure of the ridiculousness is proportional to the propinquity of death[3].

To take Smith's remarks even farther, I think I wouldn't be wrong in saying that today's cultural paradigm is rooted in a bedrock of psychological defence mechanisms, of which denial of death is just one of them. But how do we make sure to stay away from the inevitable truth? In the subchapter entitled *In loving repetition*, the author makes a relevant analogy between *reason* seen as *order* and obsessive-compulsive behaviour, pointing at how rationality and irrationality at their highest meet again:

> If reason is order, there is no more effective way to enact it in an individual human life than through repetition. Yet there is also nothing more apparently irrational, as Tolstoy, and indeed Martin Luther and most Protestant theologians since have believed, than to find oneself enslaved to the obsessive compulsions of religious ritual. Here, as often, we find that the very same thing can appear as the height of rationality, or as its opposite,

> depending only on the frame of our judgment[4].

Madness, the pinnacle of irrationality itself, was the object of Erasmus' satirical *Praise of Folly* in 1511 and Foucault's thorough approach in *Madness and Civilisation: A History of Insanity in the Age of Reason* in 1961. For centuries, it has benefited from the special attention of society, with its special spaces where madmen were contained or let loose outside the margins of the rational world so that they could be properly ignored or, at best, forced to cure, as Foucault's groundbreaking study shows. Like death, insanity would do well to absent itself from the rational discourse, too, since what one cannot see doesn't exist.

Smith's book is a guide through the philosophical and political history of irrationality from antiquity to the present day. It starts with the unconfirmed assassination of Hyppasus (the Greek philosopher who discovered the "irrational numbers") by his fellow Pythagoreans for divulging this breakthrough outside the circle of adepts and ends with the emergence of the accelerationist doctrine during President Trump's first administration. In between, the author's dissatisfaction with logic ("Plutarch's self-devouring octopus"), as the main expression of reason, results in a bitter observation concerning our times. The advent of the manipulative and deceiving beast (the internet), the decline of liberal democracy and the rise of extremism with its diminishing appetite for truth and a penchant for pseudoscience, alternative facts and nonsensical speech, are some of the modern forms of irrationality that logic hasn't been able to prevent so far: "Not only has logic not led us away from unreason. It has not even managed to purge deceit, tricksterism, power plays, and legerdemain from its own quarters"[5].

As Adorno and Horkheimer warned in 1944 in their seminal *Dialectic of Enlightenment*, it all goes back to Enlightenment's failed attempt to emancipate reason from its animistic and magical thinking roots: "*Myth is already enlightenment, and enlightenment reverts to mythology*"[6]. Jung would have called this the return of the mythologic content, the inflation of the archetypes cast away from the collective unconscious. To testify in the latter's defence, the works of Lynn Thorndike – an American historian of mediaeval science and alchemy and late professor at Columbia University – are revelatory, especially because they had been published before the famous Swiss psychotherapist's theory on archetypes and the collective unconscious came out. According to Thorndike, humanity's great thinkers shared a long history with magical thinking and superstition, in other words, with the irrational part of the mind. In *The Place of Magic in the Intellectual History of Europe* (1905), we find out that:

> Whatever Plato's opinion on vulgar magic, his view on nature was much like that of primitive man. He humanized material objects and materialized spiritual characteristics. For instance, he asserted that the Gods placed the lung about the heart *as a soft spring that, when passion was rife within, the heart, beating against a yielding body, might be cooled and suffer less, and might thus become more ready to join with passion in the service of reason.* He affirmed that the liver was designed for

> divination and was a sort of mirror on which the thoughts of the intellect fell and in which the images of the soul were reflected, but that its predictions cease to be clear after death[7].

About Francis Bacon, the English scientist and philosopher who advocated for a disciplined approach in the scientific field (empiricism, inductive reasoning, scepticism and method) and whose works exerted a great influence on the Scientific Revolution and on the Enlightenment theorists, Thorndike wrote the following:

> Finally, even Francis Bacon, famed as the draughtsman of the chart which henceforth guided explorers in the domain of science, thought that there was considerable value in physiognomy and the interpretation of natural dreams, though the superstition and phantasies of later ages had debased those subjects; and in divination *if not conducted by blind authority,* He said that by reformed astrology one might predict plagues, famines, wars, seditions, sects, great human migrations and *all great disturbances or innovations in both natural and civil affairs*[8].

Going back to Justin E.H. Smith's book, while rationalist philosophers such as Descartes, Leibniz, and Spinoza (who tried "to see mathematics as the paradigm of rationality"[9]) were part of the problem in the first place, the author argues that more recent developments in philosophy haven't contributed to solving it either: "Contemporary academic philosophy is not generally interested, as Cicero, Gassendi, Wittgenstein, and Heidegger were, in the way in which even a mastery of reason can be turned toward the exercise of unreason in human life"[10]. Neither philosophy nor politics has yet found the cure for the human being's innate and irrational tendency to lie to themselves, which is an irony if we think that, after so much time and despite all goodwill and the never-dying aspiration to improve ourselves collectively, there is no rational or practical measure that can be taken against irrational behaviour as long as we seem to be conditioned to it by default.

One famous definition of irrationality goes back to antiquity and was given to us by Aristotle in the *Nicomachean Ethics*:

> Enough has been said about some aspects of the soul in the external accounts too, and we should make use of these – for example, that one part of the soul is nonrational whereas another part has reason. […] Apparently, then, the nonrational part is also twofold, since the vegetative part does not share in reason in any way but the appetitive part (indeed, the desiring part as a whole) does so in some way, because it is able to listen to reason and obey it[11].

If in Aristotle's vision the two parts of the soul, the rational and the nonrational one, coexist in a way that encourages us to believe in the power of reason over the desiring, passionate part (in the self-controlled man), Hume's roughly similar perspective, also similarly famous, places the accents in a slightly different manner. For him, passions can motivate the faculty of reason, while the latter seems less authorised to take the lead of the former. "Reason

is, and ought only to be the slave of the passions and can never pretend to any other office than to serve and obey them"[12].

Antonio Damasio, the Portuguese professor of neuroscience, neurology, and psychology at the University of South Carolina and renowned author of the 1994 best-seller *Descartes' Error: Emotion, Reason, and the Human Brain,* also restores the importance of emotions and feelings in informing the process of reasoning and decision-making, thus contradicting the Cartesian dualism, which believed the body and the mind act separately.

> This is Descartes' error: the abyssal separation between body and mind, between the sizable, dimensioned, mechanically operated, infinitely divisible body stuff, on the one hand, and the unsizable, undimensioned, unpushpullable, nondivisible mind stuff; the suggestion that reasoning, and moral judgment, and the suffering that comes from physical pain or emotional upheaval might exist separately from the body. Specifically: the separation of the most refined operations of mind from the structure and operation of a biological organism[13].

As for Nietzsche and the existentialists' contribution to the concept of irrationality, a more applied study is that of William Barrett, entitled *Irrational Man: A Study in Existential Philosophy* (1958). The author's conclusion, after a minute examination of the lives and works of Kierkegaard, Nietzsche, Heidegger, and Sartre, is worth noting:

> So long as logic is given absolute pre-eminence in philosophy, and the logical mind placed first in the hierarchy of human functions, reason seems inevitably caught up in the fascination of static and self-identical essence, and existence tends to become an elusive and shadowy matter, as the history of philosophy abundantly confirms. So far as he logicizes, man tends to forget existence. It happens, however, that he must first exist in order to logicize[14].

Barrett's standpoint sounds strikingly like Damasio's words, who, in the final chapter of his above-mentioned book, also remarks that:

> For us then, in the beginning it was being, and only later was it thinking. And for us now, as we come into the world and develop, we still begin with being, and only later do we think. We are, and then we think, and we think only inasmuch as we are, since thinking is indeed caused by the structures and operations of being[15].

Not only do Damasio and Barrett's conclusions coincide, despite the authors' different scientific fields, but they also seem to be consistent with other studies in neuroscience, such as those on the amygdala (Joseph E. LeDoux)[16] or "interoception"[17] (A. D. Bud Craig)[18], to mention just a few of them.

Perspectives on Technology

Over the last three decades, the significant role of emotions in human behaviour and their dominance over reason during stressful situations – whether caused by external factors like environmental

threats or internal ones such as intense anxiety and fear – have been frequently evoked, particularly in relation to childhood trauma, Post-Traumatic Syndrome (PTS), and other psychological conditions. We, too, believe that the Cartesian approach in philosophy and science has not withstood the test of time and that recent discoveries in biology, neurology, neuroscience, psychology, and psychoanalysis should determine us to reconsider the concept of rationality and correlate it with what we have roughly tried to define here under the term of irrationality. Consequently, a revised perspective on rationality will result in the necessity to revisit our understanding of technology, too.

The classical way to refer to technology is to describe it as tools or machines used by their human makers. Val Dusek, an American professor of science and technology at the University of New Hampshire, calls it the *hardware* definition, in contrast to the *software* ones, namely those not involving tools or machinery[19]. In the present article we are interested mostly in the second category and its two important representatives, Lewis Mumford and Jacques Ellul, whose contributions to the philosophy of technology were remarkable.

Lewis Mumford (1895-1990) was an original, independent American scientist with different academic interests: history, sociology, and literature. He also took a profound interest in architecture, to which he dedicated some of his well-known books. Mumford's assertion is that the earliest machine in the history of humanity was made of human beings and he called it the *megamachine*. The *megamachine* was the minute organisation of impressively large numbers of people (slaves), used as a labour force for building dams, executing irrigation projects or carrying stones for the construction of the pyramids in Ancient Sumer, China, and Egypt. They were reduced to simple bodies acting like precise mechanisms in a grandiose, totalitarian apparatus, seamlessly functioning in the service of the king or pharaoh.

> The unique act of kingship was to assemble the manpower and to discipline the organization that made possible the performance of work on a scale never attempted before. As a result of this invention, huge engineering tasks were accomplished five thousand years ago that match the best present performances in mass production, standardization, and meticulous design[20].

The king was the absolute leader and divine embodiment of supreme power, reigning over a complex military, religious, and administrative bureaucratic system, of which the labouring *megamachine* was just a component. Mumford calls this royal management performance "the technique of divine rulership", which drew on raw, reinforced terror:

> At bottom, every royal reign was a reign of terror. With the extension of kingship, this underlying terror formed an integral part of the new technology and the new economy of abundance. In short, the hidden face of that beautiful dream was a nightmare, which civilization has so far not been able to throw off[21].

The philosopher's representation of the first machine in the history of humanity speaks not only about the tight connection

between technology and domination – which is a commonplace in critical theory, too – but also helps us better understand the psychological and sociological mechanisms underlying the most ancient political apparatus reproduced in the 20th-century authoritarian and totalitarian regimes. In other words, the first technology was a technology of terror, perfectly replicable, according to Mumford, five thousand years later. As we tried to show in *A Socio-Psychoanalysis of Socialist Realism (O socio-psihanaliză a realismului socialist)*[22]*, the communist repressive system was such a reenactment of the megamachine.*

Jacques Ellul, a French philosopher and sociologist (1912-1994), defines technology as rules or patterns of means-end relationships. According to Dusek, his views approach him to Max Weber, who emphasised on *rationalisation in* analysing "the rise of the West in terms of rule-governed systems in science, law, or bureaucracy". For Ellul, says Dusek, "physical tools or machinery are not what is central; instead, it is the means–end patterns systematically developed"[23]. In his 1954 book, *The Technological Society* (*La Technique ou l'enjeu du siècle*), he called these standardised patterns "techniques":

> Technique integrates the machine into society. It constructs the kind of world the machine needs and introduces order where the incoherent banging of machinery heaped up ruins. It clarifies, arranges, and rationalizes; it does in the domain of the abstract what the machine did in the domain of labor[24].

One of his major standpoints is that technology has an autonomous existence, independent of our control or decision and that society must adjust to technology, not vice versa, an idea to which we will come back in the last part of the article.

Another important aspect, not only about Ellul but also about Mumford is that they remarked – unlike many other theorists – on the capacity of technology, by its standardised and repetitive, almost ritualistic sequences, to address the human need for magic and mystical ecstasy, with which it shares common roots: "technique has evolved along two distinct paths. There is the concrete technique of *homo faber* – man the maker – to which we are accustomed, and which poses the problems we have normally studied. There is also the technique, of a more or less spiritual order, which we call magic"[25]. Drawing on Ellul's arguments, we, too, emphasised in the above-mentioned book the unwavering perseverance of the communist regimes in taking advantage of this unconscious collective conditioning through their incessant, almost ritualistic repetition of the technologic and scientific language in the daily propaganda as well as in the socialist realist productions[26].

A good analyst of propaganda himself, as well as of the ways in which technique can be used for domination in the industrial society (the creation of the machine-man/mass man, the integration of the repressive instincts and of the spiritual needs of the individual with the help of technology, the technical anaesthesia etc.), in many respects Ellul's views concorded with those of Freudo-Marxist theorists.

Inspired by Marx's critical and dual perspective on technology, the works of key figures of the Frankfurt School like Jurgen Habermas, Herbert Marcuse, Max

Horkheimer, Theodor Adorno, and Walter Benjamin brought a major contribution to the understanding of the political, social, and cultural relevance of technological progress. According to them, alienation, mass culture, and domination of the individual through bureaucratic systems and authoritarian structures – essentially, the regulation of human impulses by "a performance principle[27] that has supplanted the "reality principle" – enhance repression and further limit our autonomy. Marcuse was a virulent critic of instrumental rationality, and in 1941 he further introduced the term *technological rationality* which he would amply discuss in the famous 1964 book *One-Dimensional Man*. For him, technological rationality "protects rather than cancels the legitimacy of domination, and the instrumentalist horizon of reason opens on a rationally totalitarian society"[28]. In 2002, Andrew Feenberg dedicates an entire study, *Transforming Technology: A Critical Theory Revisited*, to Marcuse's concept.

Adorno and Horkheimer defined *technical rationality* in *Dialectic of Enlightenment* as: "the rationality of domination", "the compulsive character of a society alienated from itself"[29]. On the other hand, Habermas, who similarly criticised the undifferentiated use of instrumental rationality in all areas of life, considered it a valid concept in science and technology. If the Freudo-Marxist theorists' views regarding technology largely converged, the famous 1930s Adorno-Benjamin dispute on technological impact on the consumer culture is also worth mentioning.

The approach of the Frankfurt School theorists greatly contributed to the analysis of repressive social systems (capitalist as well as communist), and the same could be said about Mumford and Ellul's works. Moreover, in the case of the two philosophers, the abstract representation of technology might be a particularly suitable parable for understanding the latest science fiction subgenre (cyberpunk), where material worlds are sublimated into future virtual ones. And this is remarkable, considering that, at the time the two wrote, machines were solid *bodies* made of *parts*, *components* etc., which existed in the material world, unlike digital technologies and their virtual realities today.

The Silent Attraction

If there is a blind spot in the ever-changing relation between human beings and machines, it is on the part of the machines. Unless living in one of the countless science fiction films where robots start to dislike the human race and attack it, or in Stephen King's famous thriller *Christine* (1983), where Arnie's sentient and jealous car reveals *her* obsession for the man by starting to kill significant people in his life, it is generally not clear what our air fryer, iPhone or air conditioning thinks or feels about us, not to mention in what way our behaviour might influence them (or theirs). This one-dimensional relationship between humans and technology qualifies the latter for the position of a silent partner. On the other hand, not long after the industrial revolution, studies in the sociology of work started to show how machines (the famous *assembly line* during Fordism) influenced the worker's mind. In this respect, the works of Georges Friedmann, the French philosopher and sociologist, are relevant to the matter. Even back then, machines were responsible for the

depersonalisation of the worker, for leaving him with the feeling that he could "never complete any job, could never stand back and say he has achieved something himself and has done it well. Lacking any sense of participation"[30] was also a consequence of this close relationship between man and machine.

> One of the most alarming of these dangers seems to me to be the failure of human beings to participate in an environment which they can now control from outside by means of increasingly efficient, autonomous and widespread techniques. Needs and desires, capacities and aspirations, which are an essential part of man, remain unused and run to waste. He is present, and listens more or less absent-mindedly, without giving anything of himself. He is acted upon passively, and shows no power of concentration, being influenced more and more by a 'press-button' attitude[31].

Not much has changed ever since: we are still in the dark about whether there is/will be an interest of any kind in us on the part of the AI or not (and we are oscillating between Thanatos and Eros when imagining it), but the anguish preceding the great revelation foreshadows the Apocalypse. Meanwhile, more scientific studies concerning the effect of high technologies and of AI on the human mind warn us about almost the same basic dangers (only more sophisticatedly disguised) that the sociology of work did 70–80 years ago.

There are, however, some exceptions. Ray Kurzweil is one of the scientists betting on the optimistic turn of events, who fathered the "law of accelerating returns", which roughly affirms that technological (and not only) progress is exponential and grounds itself in the "positive feedback loop", meaning that each new stage of development draws on the breakthroughs of the previous one. As such, the process continues in a self-perpetuating cycle. In 2012, he published *How to Create a Mind: The Secret of Human Thought Revealed,* where he argues that:

> Biological evolution is continuing but technological evolution is moving a million times faster than the former. According to the law of accelerating returns, by the end of this century we will be able to create computation at the limits of what is possible, based on the laws of physics as applied to computation. We call matter and energy organized in this way 'computronium', which is vastly more powerful pound per pound than the human brain. It will not just be raw computation but will be infused with intelligent algorithms constituting all of human-machine knowledge. Over time we will convert much of the mass and energy in our tiny corner of the galaxy that is suitable for this purpose to computronium. Then, to keep the law of accelerating returns going, we will need to spread out to the rest of the galaxy and universe[32].

While many might be sceptical about such a future scenario, Kurzweil is convinced that "waking up the universe, and then intelligently deciding its fate by infusing it with our human intelligence in its nonbiological form, is our destiny"[33].

Indeed, the exponential progress of technology has become a reality and one of the reasons why it might have got out of control was evoked by Ellul more than half a century ago: "At present there is no counterbalance to technique. In a society in equilibrium, every new cultural tendency, every new impulse, encounters a certain number of obstacles which act as the society's first line of defence"[34]. Since then, nothing has changed; no natural obstacle or rational measure appears to have prevented the predictable destructive consequences of such unbridled development, which serves as another reminder of the French philosopher's warning that technology is an autonomous phenomenon. Could it be that behind these events is an unstoppable force of attraction that pulls humanity into the unknown technological whirlpool against our better judgement and despite all the warnings?

Kurzweil's state-of-the-art optimism about the state-of-the-art technologies doesn't fit the general atmosphere in *cyberpunk*, the most advanced science fiction subgenre. Here, future societies are rather dystopian figments whose inhabitants couldn't be more disenchanted with the technological advancement if they knew or remembered our world. The now classical and pioneering example of cyberpunk novel is William Gibson' 1984 *Neuromancer,* whose protagonist, Case, is a computer hacker that starts an adventurous journey in a lawless, gloomy world, dominated by multiple criminal organisations fighting with one another for supremacy. Case's neurological system that connected his brain to the virtual world, the Matrix, has been damaged as a punishment for his trying to steal money from his employer, so he decides to find a way to restore his condition.

The boundaries between virtual worlds and what's left of the real one are blurred, with some characters, like Wintermute and Neuromancer, being sibling AI entities that want to merge and become a superintelligence/superpower (although initially, Neuromancer is not willing to join forces with Wintermute). Given the fact that in 1984, the internet was more of a virtual concept than a reality, the book's anticipatory accuracy is almost prophetic. Like in Stanislaw Lem's 1961 novel, *Solaris,* where a planet is an intelligent entity that projects physical imitations of the memories of those who approach its ocean, among which there is the main character's dead ex-girlfriend, Rheya, in *Neuromancer*, the eponymous entity traps Case in cyberspace, where he, too, meets again his dead ex-girlfriend, Linda Lee. Unlike *Kelvin,* though, Case escapes Neuromancer's false world. Or does he not?

> And one October night, punching himself past the scarlet tiers of the Eastern Seaboard Fission Authority, he saw three figures, tiny, impossible, who stood at the very edge of one of the vast steps of data. Small as they were, he could make out the boy's grin, his pink gums, the glitter of the long gray eyes that had been Riviera's. Linda still wore his jacket; she waved, as he passed. But the third figure, close behind her, arm across her shoulders, was himself. Somewhere, very close, the laugh that wasn't laughter[35].

Human beings' persistent fascination with technology can be traced back to the

early stages of the Industrial Revolution in the British industrial novel. But that was somehow understandable, since anything new fascinates people. As such, the beginning of industrialisation, although dualistically received (depending on the social class one belonged to), was filled with high expectations on the part of the ascending *bourgeoisie* and the kind of optimism the relic of which still motivates contemporary scientists like Ray Kurzweil in their hopes for the future. Although less genuine and anachronistic, such a stance pervades the entire socialist production of the mid-20th century, for politically obvious purposes. As a matter of fact, both the Victorian and socialist realism literary periods display striking similarities from multiple points of view that I explained to a greater extent in my book on socialist realism.

One of them is the humans' unconscious, almost libidinal attraction to the embodied machines of the early industrial stages. Below is a description of such machinery, seen through the eyes of Ania, a female worker in a Soviet factory, and, apparently, it

> looks like the reconstruction from memory of a male body, slightly eroticised: 'Now the machine was not here. On the workbench was only its lower part, and Ania tried to imagine the rest of it, with its twisted pipes and complicated case. Her imagination reconstructs a turbine of exceptional power, admirably proportioned from the point of view of the usefulness of its forms' (p. 38). The machine and its functionality seem to be assimilated to a founding event of an erotic nature, which would be difficult for a man to understand: 'She was sure that Yeltsov would be happy for her, but how could he understand what that unforgettable day meant to her when the cylinder had finally been lowered over the platform of Herohin's carousel lathe?[36]

On the other hand, in *Shirley* (1849), Charlotte Brontë's novel, the eponymous main character finds the factory (a mill) *romantic*. Its owner, Mr. Moore, spends so many days and nights in his office that, when someone comes looking for him, the visitor has this almost comic exchange with the maid: " – Mr. Moore is at home, I suppose? / - Yes, sir, but he is not here. / – Not in? Where is he then? / – At the mill – in the counting-house"[37].

The blurred boundaries between home and factory (usually the former is in the yard of the latter at this early stage of industrialisation) make the workplace of the owner an indiscriminately intimate space for him, his family, and his servants. Such an example is Mr. Thornton, from *North and South* (1854-1855), Elisabeth Gaskell's novel. He lives in almost the same spatial arrangement and the passion with which he describes his equipment to Mr. Hale resembles that of Ania, the Soviet female factory worker:

> She rearranged her mother's worsted-work, and fell back into her own thoughts-as completely forgotten by Mr. Thornton as if she had not been in the room, so thoroughly was he occupied in explaining to Mr. Hale the magnificent power, yet delicate adjustment of the might of the steam hammer, which was recalling to Mr. Hale some of the wonderful stories

> of subservient genii in the Arabian Nights-one moment stretching from earth to sky and filling all the width of the horizon, at the next obediently compressed into a vase small enough to be borne in the hand of a child[38].

In *Sybill,* Disraeli points at a phenomenon similarly present in the socialist realist novel: the founding of an elitist club of master workmen acting like initiates in the secrets of the scientific and technological language and knowledge, for whom the factory is an emancipatory element (if not economically, at least as an accumulation of social capital):

> These master workmen indeed form a powerful aristocracy (…) In the first place, it is a real aristocracy, but it does something for its privileges. It is distinguished from the main body not merely by name. It is the most knowing class at Wodgate; it possesses indeed in its way complete knowledge; and it imparts in its manner a certain quantity of it to those whom it guides. Thus it is an aristocracy that leads, and therefore a fact[39].

The emancipatory quality of technology and its "elitist" language have become more evident in time, as very few of us are nowadays capable of understanding the core knowledge behind the functioning of the AI. Although everyone has a PC or a similar device that allows us to perform a minimal set of operations required to fulfil simple daily tasks in our personal or professional lives, only a small number of "chosen ones", specialists in this very advanced and completely incomprehensible (for the rest of the world) technology, can understand and speak the AI's "secret" language. And being part of the select club of initiates or aristocrats of the future will no longer sound like a choice of professional or personal evolution (as in any story about expanding or transcending knowledge or about spiritual paths); it will be simply out of reach, in other words, beyond all human capabilities.

Conclusion

As briefly shown in the literary fragments above, it seems that, since the early days of industrialisation, human subjects have related to technology not only on a rational level but also in ways that bypass it. Of all science fiction works of art, Stanislaw Lem's iconic *Solaris* remains, probably, the best reminder of it, forcing us to ask ourselves: what is it that prevails in its ending: a *value rationality* type of decision on the part of the main character or rather a purely irrational one? After the excruciating emotional turmoil inflicted by the enigmatic mind-like planet, instead of going back to his old life on earth, Kelvin chooses to remain on the station to seemingly carry on with the so far futile research on Solaris' mysterious ocean. Does he really want to devote the rest of his life to the scientific advancement of humanity, or does he cease to resist his own unconscious forces, abandoning himself to the unknown?

> That liquid giant had been the death of hundreds of men. The entire human race had tried in vain to establish even the most tenuous link with it, and it bore my weight without noticing me any more than it would notice a speck of dust. I did not believe that it could respond to the tragedy of two human

> beings. Yet its activities did have a purpose… True, I was not absolutely certain, but leaving would mean giving up a chance, perhaps an infinitesimal one, perhaps only imaginary… Must I go on living here then, among the objects we both had touched, in the air she had breathed? In the name of what? In the hope of her return? I hoped for nothing. And yet I lived in expectation. Since she had gone, that was all that remained. I did not know what achievements, what mockery, even what tortures still awaited me. I knew nothing, and I persisted in the faith that the time of cruel miracles was not past[40].

As contradictory as it may seem, at its best, the future of humanity will probably have to be a synthesis of humanism and posthumanism's best philosophical and moral assets. But, meditating on Solaris' *denouement*, can we reasonably hope for the emergence of a (possibly unknown yet) *value rationality*-based renaissance of our species, or should we rather fear its regression into pure irrationality, ideologically disguised or not? And if the first possibility has a chance to prevail, whose *value* would that be: ours or AI's? As far as our technological capabilities go, coding a human value into an AI system will not be possible, as Nick Bostrom, professor of philosophy at Oxford University, wrote in 2014. And the question is not *if*, but *when* such a "superintelligent sovereign", with no human value encoded, becomes a reality:

> But if one seeks to promote or protect any plausible human value, and one is building a system intended to become a superintelligent sovereign, then explicitly coding the requisite complete goal representation appears to be hopelessly out of reach. If we cannot transfer human values into an AI by typing out full-blown representations in computer code, what else might we try?[41]

So far, the question has remained unanswered.

While waiting for the theory of *technological singularity* to come true (that is, for Wintermute to merge with Neuromancer and rule the Matrix), what's left for us to do? As victims of our own habits, we might as well go back to Aristotle's *History of Animals* and see if the great philosopher got it right about the hen-partridge being inseminated "by the mere breath of the cock or by a breeze from his direction" or to what extent growing head lice really helps with migraines[42]. The ancient philosopher's beliefs prove that neither pseudoscience nor irrational thinking are new to humans; they happened to the best of us.

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Notes

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2. Justin E.H. Smith, *Irrationality: A History of the Dark Side of Reason,* Princeton, Princeton University Press, 2020, p. 34.
3. *Ibidem*, p. 261.
4. *Ibidem,* p. 294.
5. *Ibidem,* p. 58.
6. Max Horkheimer, Theodor W. Adorno, *Dialectic of Enlightenment: Philosophical Fragments,* edited by Gunzelin Schmid Noerr, translated by Edmund Jephcott, Stanford, Stanford University Press, 2002, p. xviii.

7. Lynn Thorndike, *The Place of Magic in the Intellectual History of Europe, New York, The Columbia University Press, 1905,* p. 60.
8. *Ibidem*, p. 23.
9. Val Dusek, *Philosophy of Technology: An Introduction,* Oxford, Blackwell Publishing, 2003, p. 55.
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12. David Hume, *A Treatise of Human Nature: Being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects,* Auckland, The Floating Press, 2009, p. 636.
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14. William Barrett, *Irrational Man: A Study in Existential Philosophy, New York, Doubleday Anchor Books, 1958, p. 305.*
15. Antonio Damasio, *op. cit.,* p. 234.
16. Joseph E. LeDoux, *The Emotional Brain, Fear, and the Amygdala,* in *Cellular and Molecular Neurobiology*, no. 23, October 2003, p. 727-738.
17. "Interoception is the ability to be aware of internal sensations in the body, including heart rate, respiration, hunger, fullness, temperature, and pain, as well as emotion sensations. Many people consider interoception to be an additional sense that is critical to the way we understand how we feel on a moment-to-moment basis", Weir, Kirsten, "What is interoception, and how does it affect mental health? 5 questions for April Smith", in *Monitor on Psychology*, Vol. 54, no. 3, April 1, 2023, p. 33.
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21. *Ibidem*, p. 185.
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25. *Ibidem,* p. 55.
26. Alice Popescu, *op. cit.,* p. 172 – 173.
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28. *Idem, One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society,* Abingdon, Routledge, 2002, p. 162.
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32. Ray Kurzweil, *How to Create a Mind: The Secret of Human Thought Revealed,* London, Viking by Penguin Book, 2012, p. 261.
33. *Ibidem,* p. 262.
34. Jacques Ellul, *op.cit.,* p. 335.
35. William Gibson, *Neuromancer,* New York, Ace Publishing Group, 2003, electronic version, p. 203.
36. Alice Popescu, *Op.cit.*: Iată, de această dată, descrierea unei mașini prin ochii Aniei, din romanul autoarei sovietice V. Ketlinskaia *Zilele vieții noastre*, care pare reconstituirea din memorie a unui

trup masculin, ușor erotizată: „Acum mașina nu era aici. Pe banc era numai partea ei inferioară și Ania căută să-și imagineze tot restul mașinii, cu țevile ei întortocheate și cu carcasa complicată. Imaginația ei reconstitui o turbină de o putere excepțională, admirabil proporționată din punctul de vedere al utilității formelor ei" (p. 38). Mașina și funcționalitatea ei par asimilabile unui eveniment fondator de natură erotică, pe care îl presupune greu de înțeles de către un bărbat: „Era sigură că Elțov o să se bucure pentru ea, dar cum ar putea el să înțeleagă ce a însemnat pentru ea ziua aceea de neuitat când cilindrul fusese coborât în sfârșit deasupra platoului strungului carusel al lui Erohin?" (*Zilele vieții noastre*, p. 478), p. 172.

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41. Nick Bostrom, *Superintelligence: Past, Dangers, Strategies*, Oxford, Oxford University Press, 2014, p. 210.

42. Lynn Thorndike, *op. cit.,* p. 63.