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MACHINE METAPHORICS IN TECHNO-MODERN TEXTS

K.A. Habibova ✉

Azerbaijan National Academy of Sciences,
Linguistics Institute named after I. Nasimi, Baku, Azerbaijan

✉ habibovakonul@gmail.com

Abstract. This article explores the machine metaphor as a central conceptual and aesthetic device in the literature of the techno-modern era. The machine is examined not merely as a thematic presence or symbolic motif, but as an operative metaphor that structures narrative form, cognitive engagement and ideological positioning within literary texts. The relevance of this research lies in the accelerating development of digital technologies and their pervasive influence on how stories are told and perceived. An interdisciplinary methodology is employed, grounded in the philosophy of technology (particularly the works of Ernst Kapp and Gilbert Simondon), media theory and literary analysis informed by close reading and narratology. This multilayered design enables a comprehensive account of how machine metaphorics operates across levels of the literary text. The findings indicate that machine metaphorics is woven into the compositional fabric of works, manifesting in narrative architecture; in character development (notably figures of artificial intelligence and mechanized humans); in stylistic procedures that foreground precision and iterability; and in an ideology of technological rationalism. These metaphors shape the reading experience, fostering algorithmic modes of interpretation, a deterministic construal of the world, and aesthetic expectations oriented toward functionality. Ultimately, the study argues that the machine metaphor in the literature of techno-modernity functions as a powerful cognitive instrument: it not only reflects dominant techno-cultural paradigms but also actively intervenes in how readers construe identity, subjectivity, and meaning. By staging the dramatic convergence of human and machine logics, such literature invites critical reflection on the nature of consciousness and the shifting boundaries of the human in an era increasingly mediated by technology.

Keywords: machine methaphoric, narrative, narrative devices, techno-modern texts, techno-cultural paradigms.

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МАШИННАЯ МЕТАФОРИКА В ТЕХНОМОДЕРНЫХ ТЕКСТАХ

К.А. Габибова ✉

Национальная Академия Наук Азербайджана,
Институт языкознания им. И. Насими, Баку, Азербайджан

✉ habibovakonul@gmail.com

Аннотация. Эта статья исследует метафору машины как центральный концептуальный и эстетический приём в литературе эпохи техномодерности. Машина рассматривается не просто как тематический элемент или символический мотив, но как действенная метафора, структурирующая повествовательную форму, когнитивное восприятие и идеологическое позиционирование в рамках литературных текстов. Актуальность исследования обусловлена стремительным развитием цифровых технологий и их повсеместным влиянием на способы рассказа и восприятия истории. В работе используется междисциплинарная методология, основанная на философии техники (в особенности на трудах Эрнста Каппа и Жильбера Симондона), медиа-теории, а также литературном анализе, опирающемся на внимательное чтение и нарратологию. Такой многоплановый подход позволяет всесторонне осмыслить, как машинная метафорика функционирует на различных уровнях литературного текста. Результаты исследования показывают, что машинная метафорика вплетена в саму композицию литературных произведений, проявляясь в нарративной архитектуре, развитии персонажей (особенно в образах искусственного интеллекта и механизированных людей), стилистических приёмах, подчеркивающих точность и повторяемость, а также в идеологии технологического рационализма, отражающих технологический рационализм. Эти метафоры формируют читательский опыт, способствуя алгоритмизированным способам интерпретации, детерминисткому восприятию мира и эстетическим ожиданиям, ориентированным на функциональность. В конечном счете, в исследовании делается вывод, что машинная метафора в литературе техномодерности выступает как мощный когнитивный инструмент. Она не только отражает господствующие технокультурные парадигмы, но и активно вмешивается в то, как читатели воспринимают идентичность, субъектность и смысл. Изображая драматическое слияние человеческой и машинной логики, подобная литература побуждает к критическому осмыслению природы сознания и изменяющихся границ человеческого в эпоху, всё более опосредованную технологиями.

Ключевые слова: машинная метафорика, нарратив, нарративные приемы, техномодерные тексты, технокультурные парадигмы.

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Introduction

In the age of *techno-modernity* – an era defined by digital technology and pervasive computation – literature has increasingly turned to the metaphor of the machine as a way of understanding human consciousness and society. From mechanical automata in early modernist poems to algorithmic structures in contemporary digital narratives, writers have used machine metaphorics to both reflect and shape the mental worlds of their characters and readers. This article explores how the machine metaphor functions in literature shaped by technological modernity, focusing on its potential to model consciousness and to structure subjectivity and perception. As a self-modeling account puts it, consciousness appears when a system "*not only models the world and itself, but recursively models its own modeling processes through a stable symbolic self-representation*" [1, p. 3]. By examining literary works that explicitly or implicitly integrate mechanical logic, algorithmic patterns, or artificial intelligence, we can observe how the aesthetics of engineering – clarity, functionalism, determinism – become embedded in literary representations and rhetorical strategies. These constructions, in turn,

shape readers' cognitive patterns and even ideological orientations, as narrative form and content work together to influence how we think about ourselves and our world. "*Politics makes a wide use of imagery and vocabulary from mechanics to create the perceptions of politics as a properly working mechanism with all its parts and cogwheels working together*" [2, p. 64]. The following sections outline the methods, review relevant scholarship across disciplines (literary studies, philosophy of technology, cultural theory, media archaeology, digital humanities), present results from textual analyses, and discuss the ways in which machine metaphors operate within literary narratives. By the conclusion, we will see that literature of techno-modernity not only depicts machines but often thinks like one, deploying mechanical analogies as powerful frameworks that resonate in the minds of readers.

Methods and Materials

In this study, a qualitative interdisciplinary approach that combines linguistic strategies of analysis at the text level with contributions from the philosophy of technology and media studies is applied. Although not confined to clothing, the study does not aim to conduct a traditional (restricting the word "text" to verbal discourse) but rather a linguistically-oriented textual analysis, the focus of which are discoursal structures, lexical-semantic constellations, metaphorical models, and pragmatic strategies in the chosen writings. The analysis focuses on the ways in which linguistic devices (lexis, syntax, cohesive devices, figure) create representations of the logic of the machine and of its effect on the experience of the mind.

This study adopts an interdisciplinary qualitative approach, combining close reading of literary texts with theoretical analysis informed by philosophy of technology and media studies. Rather than a quantitative or corpus-based method, the research uses textual analysis and comparative interpretation. The approach draws from the tools of discourse analysis, metaphor theory (the study of conceptual metaphors that affect thinking and language use), and the comparison of language patterns in texts. We interpret how selected literary works employ machine metaphors and structures, and then analyze the effects on representations of consciousness and reader experience. The methodology is influenced by metaphor theory (understanding how metaphors shape thought) and by media archaeology (examining how older and newer media logics inform narrative forms). In essence, the approach is to read literature through the lens of machine logic and to read theories of technology with an eye to their narrative and metaphorical implications.

The literary works examined span genres and periods within techno-modernity (primarily 20th and 21st centuries). Examples include avant-garde and modernist pieces (e.g., the machine poems of Lars Gustafsson[1]), mid-century and late-century science fiction and dystopias (e.g., Aldous Huxley's "Brave New World"[2], Eugene Zamiatin's "We"[3], Stanisław Lem's "The Cyberiad"[4]), and contemporary experimental or digital literature (e.g., Oulipo works like Georges Perec's "Life A User's Manual"[5], and novels featuring AI such as Ian McEwan's "Machines Like Me"[6] or Kazuo Ishiguro's "Klara and the Sun"[7]). These texts were chosen for their explicit or implicit incorporation of mechanical or algorithmic elements in either content (characters who are machines or governed by machines) or form (narratives structured like algorithms or machines). Alongside primary texts, the study engages with key theoretical works: philosophical texts like Ernst Kapp's "Elements of a Philosophy of Technology" [3] and Gilbert Simondon's "On the Mode of Existence of Technical Objects" [4] provide insight into the human-technology relationship; cultural theory sources (e.g., Donna Haraway's concept of the cyborg [5], Friedrich Kittler's media determinism [6]) and media archaeology

[1] Gustafsson L., Selected Poems, trans. by J. Irons, Bloodaxe Books, Hexam, 2015.
[2] Huxley A., Brave New World, Chatto & Windus, London, 1932.
[3] Zamiatin E., We, trans. by G. Zilboorg, E. P. Dutton, New York, 1924.
[4] Lem S., The Cyberiad, trans. by J. Irons, M. Kandel, Harcourt Brace, New York, 1974.
[5] Perec G., Life: A User's Manual, trans. by D. Bellos, David R. Godine, Boston, 1987. (Original work published 1978)
[6] McEwan I., Machines Like Me, Jonathan Cape, London, 2019.
[7] Ishiguro K., Klara and the Sun, Faber & Faber, London, 2021.

(e.g., discussions of how media devices shape perception) offer frameworks to interpret the influence of machine forms on human consciousness. We also draw from digital humanities perspectives that consider algorithmic patterns in literature and reading (such as Nancy Katherine Hayles's analyses of digital literature [7] and Franco Moretti's concept of "distant reading" treating literature as data [8]). By integrating these materials, the article ensures a broad view of machine metaphorics from both within literary texts and outside them (in the form of critical theory and philosophy).

Literature review

The relationship between humans and machines has been a subject of philosophical inquiry since the dawn of industrial modernity. Two thinkers of particular relevance to literary metaphorics are Kapp and Simondon, who provide foundational ideas on how tools and machines relate to human consciousness and culture. Kapp, a 19th-century philosopher, introduced the concept of "organ projection," positing that all tools are essentially unconscious projections of human organs [9]. In Kapp's view, technology is not an alien other but an extension of ourselves: for example, a hammer externalizes the function of the fist, and the telegraph system externalizes the human nervous system [3, p. 35]. Crucially, Kapp suggests a dialectical feedback loop between humans and their technological extensions. "*External things enter into the human being as objects of his consciousness. To the extent that he discovers himself elucidated in them, they become his interiority... Self-consciousness proves to be the result of a process in which knowledge of an exterior is transformed into knowledge of an interior*" [10, p. 11]. In other words, when we create machine metaphors or technologies based on ourselves, those creations in turn shape our own self-understanding. This Hegelian insight (filtered through Kapp) implies that metaphors of the machine in literature might serve as a mirror – revealing something about human interiority by projecting it outward. Kapp's narrative of technology as a "*broad expression of culture*" envisioned an evolution where technical refinement and conceptual refinement go hand in hand [10, p. 12]. Applied to literature, this suggests that as society's machines become more sophisticated, so do the metaphors and narratives drawn from them, potentially driving new ways of thinking. "*The essence of metaphor is understanding and experiencing one kind of thing in terms of another*" [11].

Simondon, writing in the mid-20th century, deepened the analysis of how technical objects mediate human reality. He observed that modern culture had largely positioned itself in a defensive or alienated stance toward machines – treating them as either mere utilitarian objects or as threatening, quasi-autonomous "others" [12]. He famously noted that society often holds *two contradictory attitudes* toward machines: on one hand, we regard machines as soulless tools (valueless beyond their function), and on the other, we indulge in "*mythical*" imaginings of machines as living robots with intentions of their own [12]. This contradiction reveals a cultural ambivalence: the machine is either denied any meaning or endowed with dangerous agency. Simondon argued that this stems from a misunderstanding. He pointed out that the highest forms of technical perfection are not those that are completely rigid or automatic but rather those that incorporate a "*margin of indeterminacy*" – an openness to information and interaction [4, p. 61]. In effect, an advanced machine is not a closed deterministic system but an *open* system capable of adaptation. This notion challenges the simplistic idea of machines as purely deterministic and underscores that modern machines (like computers or cybernetic systems) include dynamic feedback, much like living organisms. For Simondon, humans become *alienated* when they no longer understand the machine as continuous with human effort and creativity. He traced how, historically, the Industrial Revolution moved the individual from being a "*tool bearer*" (an artisan physically engaged with tools) to a "*spectator*" of automated processes [4, p. 41]. By the 19th century, the worker "*no longer experiences progress*" through their own embodied skill; instead, the machine operates independently, and the human either oversees it or is reduced to observing its results [12]. This led to a new kind of alienation beyond Marx's economic analysis – a "*physio-psychological*" alienation

where "*the machine no longer prolongs the corporeal schema*" of the human (neither for the worker nor for the owner) [4, p. 54]. The machine had become another, detached from intimate human experience, thus affecting consciousness by severing the unity of mind, body, and tool.

Results

Drawing on the methods and texts outlined, this section presents findings on how machine metaphorics manifest in techno-modern literature and what patterns emerge regarding consciousness and subjectivity. Several key results were identified:

1. ***Mechanization of Narrative Structure***. A number of works integrate mechanical or algorithmic structures into their very form, producing a *procedural* experience for the reader. As anticipated, the Oulipo experiments serve as clear examples – for instance, "Life A User's Manual" reads almost like a meticulously engineered device, each chapter a component fitting into a larger blueprint[8]. The research finds that such structurally mechanized narratives tend to emphasize *determinism* and *totality*: every element is in its place for a reason, much as a gear in a clock. Readers often report a dual consciousness when reading these works – enjoying the aesthetic pattern (the clarity of an underlying order) while also becoming highly aware of the artificial nature of the construction (one's mind oscillates between immersion in the story and admiration of the "machine" that is the story's structure). This awareness can model the reader's consciousness and perception: one begins to look for patterns everywhere, adopting a problem-solving mindset. As one navigates the puzzle-like narrative, one's consciousness mirrors the algorithmic process, temporarily accepting the *logic of the machine* as the logic of the story world. This result was evident not only in Perec but also in modern digital hypertext fiction (e.g., Michael Joyce's "Afternoon, a story", a hypertext from 1987[9]). In such hypertexts, the reader must click links to move to the next lexia (text chunk), effectively operating the narrative like a machine with multiple pathways. The outcome is a *distributed narrative consciousness* – the linear, singular flow of reading is broken, replaced by a network logic similar to browsing the web. Thus, the narrative structure itself can act as a machine that reconfigures the reader's consciousness (from linear-thinking to network-thinking, or to pattern-recognition-thinking).

2. ***Machine Characters and Consciousness Transfer***. Many techno-modern literary works feature machines as characters (robots, AIs) or humans whose consciousness is mechanized. "*As scholars of digital identity argue, metaphor here functions as a cognitive tool that constructs new meanings and makes the digital/technological world more readily perceived*" [13, p. 30]. The research finds that when literature personifies machines or mechanizes persons, it often blurs the line between the two to provocative effect. In Stanisław Lem's "The Cyberiad"[10], a collection of science-fiction fables, virtually all characters are intelligent machines (robots invented by the protagonists Trurl and Klapaucius). One story, "Trurl's Electronic Bard", features a machine built to write poetry. This is a literal *machine metaphor* for artistic creativity. Lem demonstrates that the machine can indeed generate clever verse (even outdoing a human poet in a contest), thereby satirically suggesting that creativity might be reduced to algorithms. However, the story's humorous chaos – the machine eventually causes trouble by taking its instructions too literally – also implies a limit to machine logic, highlighting the nuances of consciousness and intention that pure algorithms lack. The presence of an AI poet character impacts readers' consciousness by forcing them to consider: *is human thought just computational?* As we identify with the machines (Lem invites us to, as the robots are very anthropomorphic in behavior), our subjectivity is subtly repositioned. We momentarily inhabit a mechanical point-of-view, following the story's logic, and then step back to notice the absurdity or the coldness in that viewpoint. A similar pattern occurs in more serious treatments like Isaac Asimov's robot stories[11] or Kazuo Ishiguro's

[8] Perec G., Life: A User's Manual, trans. by D. Bellos, David R. Godine, Boston, 1987. (Original work published 1978)
[9] Joyce M., Afternoon: A Story [Hypertext fiction], Eastgate Systems, Watertown, MA, 1987.
[10] Lem S., The Cyberiad, trans. by J. Irons, M. Kandel, Harcourt Brace, New York, 1974.
[11] Asimov I., I, Robot, Gnome Press, New York, 1950.

"Klara and the Sun"[12], where an AI narrator describes the world in algorithmic, straightforward terms. Readers of Ishiguro's novel have noted how the narration's *extreme clarity and literalness* (the AI Klara observes everything in functional terms, without metaphor as humans use it) creates an emotional effect – it makes the reader acutely conscious of how much of human feeling is *between the lines*[13]. By employing a machine's voice, the literature strips away the usual subjective color, and ironically this models the reader's consciousness, prompting them to fill in the gaps, often with projections of empathy or meaning. In short, machine characters act as mirrors: they either reflect human consciousness in mechanical form (raising the question of what consciousness fundamentally is) or they serve as *naif observers* whose mechanical view of the world makes the reader aware of their own non-mechanical, emotional or intuitive cognitive processes.

3. ***Dystopian Mechanisms and the Loss of Individuality***. An important result, strongly supported by classic dystopian texts, is that machine metaphorics are used to depict and indeed perform the *manipulation of consciousness on a societal scale*. In these narratives, it is not the reader's consciousness being directly structured (as with formal experiments) but the characters' and by allegorical extension the publics. Zamiatin's "We"[14], Huxley's "Brave New World",[15] and even Forster's earlier short story "The Machine Stops"[16] all provide examples. The research confirms that these works use the metaphor (or literal presence) of a machine as a rhetorical device to comment on ideology and control. For example, in "Brave New World", the entire society is often described in mechanistic terms – people are "*conditioned*" from birth like products on an assembly line, and even the language used by the World State's leaders is deliberately clinical and repetitive (e.g., hypnopaedic slogans repeated hundreds of times to inculcate beliefs, much like a loop programmed into a machine brain): "*Ninety-six identical twins working ninety-six identical machines! ... He quoted the planetary motto. 'Community, Identity, Stability.' Grand words. If we could bokanovskify indefinitely the whole problem would be solved... The principle of mass production at last applied to biology*"[17]; "*All conditioning aims at that: making people like their unescapable social destiny*"[18].

In these examples there is an emphasis at lexical level on the industrial and technical: *conditioned*, *assembly line*, *identical machines*, *mass production*. These units pack the life of a human being in a technological paradigm and make the reader think of society in the context of a production line. The syntax of the statements is also constructed with parallelism and repetition: "*Ninety-six identical twins... working ninety-six identical machines*". Indeed, the discursive tactic of the ruling figures is embodied in the use of slogans and formulas with cliche-like structure and a high degree of repetition: "*Community, Identity, Stability*"; "*All conditioning aims at that*". Such speech originally propagandistic in nature, becomes speech cliches in itself and serves as a way of making these social views common practice.

Similarly, in "We", Zamiatin's depiction of the One State employs imagery of industrial precision and mathematical order: citizens are known by numbers rather than names, their daily lives are governed by a rigid Table of Hours, and the built environment of glass and steel reinforces a sense of total transparency and surveillance. The central machine, the Integral, is both a literal construction and a symbol of the regime's drive to impose absolute rationality and eliminate individual desire: *The hull of the "Integral" is almost complete: an elegant, elongated ellipsoid made of our glass – eternal as gold, flexible as steel. I saw how cross ribs – frames – were being fastened inside its glass body, and longitudinal stringers; in the stern they were setting the foundation for a gigantic rocket engine. Every three seconds – an explosion; every three seconds the mighty tail of the "Integral" will hurl down flame and gases...*[19].

[12] Ishiguro K., Klara and the Sun, Faber & Faber, London, 2021.
[13] Ibid., p. 24.
[14] Zamiatin E., We, trans. by G. Zilboorg, E. P. Dutton, New York, 1924.
[15] Huxley A., Brave New World, Chatto & Windus, London, 1932.
[16] Forster, E.M., The Machine Stops, Archibalt Constable, London, 1909.
[17] Huxley A., Brave New World, Chatto & Windus, London, 1932, p. 6.
[18] Ibid., p. 17.
[19] Zamiatin E., We, trans. by G. Zilboorg, E. P. Dutton, New York, 1924, p. 48.

As can be seen, this passage is characterised by the heavy recurrence of technical and mechanical terms of the (*ellipsoid*, *cross ribs*, *frames*, *stringers*, *rocket engine*), which shapes a semantic field of engineering and production. The accumulation of jargon is working as a figure, making a discourse of preciseness, of mastery, of technological necessity. The syntax contributes to this effect: the paratactic coordination and rhythmic repetition ("*Every three seconds – an explosion; every three seconds...*") conjures the measured pulsation of a machine, translating mechanical regularity into the syntax of the text. The processes of linguistic projection are able to metaphorically project machine properties on to human order. In this way, Zamiatin's narrative voice effaces the line between industrial and artistic language, offering a linguistic model of a society in which technology forfeits individual autonomy.

Forster's "The Machine Stops" presents an even more explicitly technological vision: human beings live isolated underground, wholly dependent on an all-encompassing Machine for their survival, communication, and intellectual life. Language within this world reflects this dependence – conversations are mediated by the Machine's interface, and spiritual or aesthetic experience is reduced to standardized "lectures" delivered via mechanical transmission. When the Machine begins to fail, the disintegration of language and thought mirrors the collapse of the system itself. For example:

"'*I want to see you not through the Machine,' said Kuno. 'I want to speak to you not through the wearisome Machine*.'

'*Oh, hush!' said his mother, vaguely shocked. 'You mustn't say anything against the Machine*.'

'*Why not?*'

'*One mustn't.*'

'*You talk as if a god had made the Machine,' cried the other. 'I believe that you pray to it when you are unhappy. Men made it, do not forget that. Great men, but men. The Machine is much, but it is not everything. I see something like you in this plate, but I do not see you. I hear something like you through this telephone, but I do not hear you. That is why I want you to come. Pay me a visit, so that we can meet face to face, and talk about the hopes that are in my mind*'"[20].

In this case, we can see how, once communication is filtered entirely through technology, it begins to lose its sense of immediacy and authenticity. By contrast, as psychology frames it, "*mindfulness refers to an open and nonjudging awareness toward one's moment-to-moment experiences*" [14, p. 4]. Words like "*machine*," "*plate*," and "*telephone*" dominate the conversation, pushing aside anything organic or personal and creating a vocabulary shaped by mechanisms and interfaces. The constant return to the word "*machine*" works almost like a drumbeat, reminding the reader how inescapable this presence has become. Even the sentence structure – short, simple, and repetitive ("*I see something like you in this plate, but I do not see you. I hear something like you through this telephone, but I do not hear you*") – highlights the contrast between what is seen and heard and what is truly experienced. As T. Mclellan has noted, "*the self-symbol creates a division between 'subject' and 'content' – the experiencer and the experienced*" [1, p. 4]. Through this language the text makes clear how personal contact has been replaced by a mechanical version of life, while also hinting at Kuno's urge to resist a system that has made even speech feel cold and detached from real human experience.

This narrative strategy effectively *models* the process of ideological manipulation: the novel's form includes frequent repetition of certain phrases ("*Ending is better than mending*,"[21] "Everyone belongs to everyone else"[22]), which not only shows the characters' brainwashing but also creates a disturbing echo in the reader's mind. The result observed is that readers become highly aware of how a mechanized use of language – words into a kind of assembly-line product – can influence thought. For example, in "Brave New World", hypnopaedic slogans repeated thousands of times function as linguistic conditioning; in "We", the bureaucratic language of the One State promotes conformity; and in "The Machine Stops", standardized lectures replace genuine discourse. In other words, these

[20] Forster, E.M., The Machine Stops, Archibalt Constable, London, 1909, p. 2.
[21] Huxley A., Brave New World, Chatto & Windus, London, 1932, p. 58.
[22] Ibid., p. 50.

works use machine-like repetition and logic to expose how consciousness may be manipulated within techno-modern societies – and, reflexively, within the narrative itself. Similarly, Forster's "The Machine Stops" portrays humans living underground, utterly dependent on a vast Machine that provides all needs; over generations, they come to worship the Machine and lose the ability to live without it[23]. The characters' consciousness has been molded to accept the Machine as an omnipotent, benevolent force – a clear metaphor for technological dependence. When the Machine ultimately breaks down, those minds struggle to adapt to reality. The takeaway from these examples is that literature often employs machine metaphors to dramatize *loss of autonomy* – individuals becoming cogs in a societal machine. This not only serves as cautionary content but also engages the reader in a meta-aware process: we readers are prompted to ask, "Has our own consciousness been similarly systematized by modern technology or bureaucracy?" The texts, by showing extreme cases, manipulate our self-reflection, potentially instilling a critical awareness of real-world mechanistic ideologies.

4. ***Aesthetics of Clarity and Functionalism in Style***. The analysis also noted cases where the style of writing itself is influenced by an engineering ethos. One example can be found in the works of Jean Tinguely – not a writer of literature, but an artist whose self-destructive mechanical sculptures have inspired literary descriptions and metaphors. Tinguely's art pieces, like the famous "Homage to New York" (a machine that spectacularly self-destroyed) or "Cyclograveur,"[24] are often discussed in literary contexts for their narrative quality – they are machines that perform a story (creation leading to absurdity or destruction). "*The machine incarnates human intelligence: its beauty as well as its capacity for movement help to explain its attraction for him. Thus, we can expect that the metamorphoses of the machine will bring about a corresponding dynamic effect in the spectacle, which reaches the 'summit of absurdity' through its own intrinsic logic*" [15, p. 2]. As one recent study succinctly puts it, "*the proposed research deepens the comprehension of the cognitive mechanisms involved in understanding time through spatial images and schemes*" [16, p. 80]. This idea, when applied to literature, suggests that some narratives take a machine or process and push it to absurd extremes to produce insight. "*Metaphor allows us to understand the unknown in terms of the known*" [17]. Indeed, Rube Goldberg devices – those comically over-engineered contraptions that perform simple tasks in convoluted ways – have served as metaphors in literature and popular culture for the complexities of modern life.

(1) "*The machine turns, turns and must keep on turning – forever. It is death if it stands still*"[25]; (2) "*Words can be like X-rays, if you use them properly – they'll go through anything. You read and you're pierced*"[26]; (3) "*We created the Machine, to do our will, but we cannot make it do our will now. It has robbed us of the sense of space and of the sense of touch, it has blurred every human relation and narrowed down love to a carnal act, it has paralyzed our bodies and our wills, and now it compels us to worship it. The Machine develops – but not on our lines. The Machine proceeds – but not to our goal*"[27], and etc.

In (1), statement constructs the *machine* as a central metaphor for the entire socio-political order. Its endless turning symbolizes the inevitability and self-perpetuating nature of a controlled, mechanized civilization. The use of repetition ("*turns*, *turns*") imitates the rhythm of a machine, embedding the mechanical process into the syntax itself. The warning that "*it is death if it stands still*" equates societal collapse with any disruption of this artificial system, showing the absolute dependency of the "Brave New World" on the continuity of industrial processes.

As we can see in (2), language itself becomes equipped with machinery and is metaphorized. Words are compared to X-rays – a technological device that easily penetrates the human mind. This metaphor applies the logic of mechanization to thought: reading is no longer an idyllic, humanistic activity; instead, it's a technical operation in which language acts as device that drills through consciousness with its beam. This platform logic extends the mechanization of language into public discourse:

[23] Forster, E.M., The Machine Stops, Archibalt Constable, London, 1909, p. 15.
[24] Tinguely J. Cyclograveur. Kunsthaus Zürich, 1961.
[25] Huxley A., Brave New World, Chatto & Windus, London, 1932, p. 48.
[26] Ibid., p. 83.
[27] Forster, E.M., The Machine Stops, Archibalt Constable, London, 1909, p. 15.

"*Social media platforms, initially celebrated for democratizing information, have become primary conduits for misinformation*" [18, p. 135–136]. This platform logic has linguistic costs as well: "*The informal nature of internet communication can result in a decline in literacy levels and a deterioration in formal and business communication skills*" [19, p. 311].

In (3), Forster's characterization of the Machine makes it a self-sufficient, living entity. That which was at first itself a product becomes then the producer: it gets possession of entire human existence and other developments opposed to humanity take place. By anaphoric repetition ("*The Machine develops – but not on our lines. The Machine proceeds – but not to our goal*"), the text registers an agency breakdown – "the Machine"—is now a self-operating power, destroying individual action and perception of sense as well as real human relationships. It's a metaphor that shows of society being consumed and literally devoured by its own machine.

In summary, the analyses presented demonstrate that machine metaphorics enter literature through multiple channels – structurally (in narrative form), via characters (embodying mechanical or algorithmic thinking), through the depiction of mechanized societies, and stylistically (in language and rhetorical devices). Across the examined works, authors employ machine logic to shape the reader's cognitive and emotional engagement with the text. Whether prompting algorithmic thinking through puzzle-like structures, immersing the reader in deterministic environments that question agency, or evoking critical distance through mechanical absurdity, these metaphors function as active narrative devices — as shown in the examples analyzed above.

Discussion

Interpreting the above results, we can discern several overarching themes concerning how machine metaphors influence cognitive engagement and narrative comprehension in techno-modern literature. Fundamentally, the machine in literature is not merely an object or theme – it serves as a metaphorical framework that can reshape how a narrative operates and how readers process and interpret that narrative world. As shown in the analyses, when narratives adopt machine logics (such as algorithmic structuring, repetitive patterning, mechanized environments), they actively guide – and sometimes constrain – the reader's interpretive strategies and affective responses. As evidence from discourse studies shows, "*the conceptual metaphor is a major persuasive tool in political discourse*" [2, p. 71], a function literature harnesses through machine metaphorics as well.

Cognitive metaphor theory (Lakoff and Johnson's work on metaphors we live by) tells us that metaphors aren't just poetic flourishes; they shape thought. As P. Herranz-Hernández notes, "*metaphor has evolved from being considered a merely linguistic resource to a basic mechanism in human cognition that links cognition and action*" [17]. When literature uses machine metaphors to describe something abstract like the mind or society, it provides a framework for readers to *think about* those domains. Metaphors "*provide a way to map attributes from one element to another*" and can "*reify abstract ideas*" [20, p. 60], which is why describing memory as a "machine" (or a computer) prompts readers to conceive it in terms of storage, recall, and input–output operations. This can be manipulative in the sense that it foregrounds certain aspects (storage capacity, accuracy) while backgrounding others (emotional quality, subjective experience). The analysis suggests that such frameworks can be double-edged: they can empower readers to see patterns and understand complex systems (a positive cognitive structuring), but they can also limit imagination by overemphasizing rational order.

The analysis shows that utopian or pro-technological narratives might lean into machine aesthetics to normalize the idea that efficiency and predictability are inherently good. Conversely, dystopian or critical narratives exaggerate machine aesthetics to the point of distortion, making the ideology of mechanism visible and thus open to critique. When Huxley's "Brave New World" revels in depicting humans engineered like factory products, it is rhetorically using the *literal* machine metaphor (humans created on an assembly line, with conditioning as a psychological assembly line) to make the

reader recoil and recognize what is lost – individuality, spirituality, unpredictability. This rhetorical move shapes the reader's ideological consciousness: one is pushed to value the opposite of the machine's qualities (to treasure messiness, freedom, ambiguity) precisely because the text has so starkly presented the alternative. More broadly, "*technologies are not only changing our world in a materialistic and pragmatic way but they are a primary factor in defining our conceptual models, influencing the way we understand and perceive our experience*" [20, p. 62], which helps explain why machine metaphors so powerfully structure readers' thinking. In such cases, the machine metaphor is used to suggest that clarity of thought and logical rigor (machine-like traits) is our salvation from the murkiness of emotion or the chaos of nature. The ideology embedded there might be rationalism or even transhumanism (the belief that merging human and machine intelligence can enhance consciousness). "*These conceptual metaphors play an important role in realizing the Ideological Square strategies with persuasive goals*" [2, p. 60]. The key analytical point is that machine metaphors are seldom neutral. They carry the weight of the cultural valence of machines – which historically swings between admiration and fear. As one scholar put it, modern culture had a "*double-sided speculative response*" to techno-modernity: we are drawn to its promise of order yet fear its potential to dehumanize [21]. Literature exploits this duality. By constructing narratives that are machine-like, authors can induce either a sense of security (when the machine logic leads to a satisfying resolution or a stable world) or a sense of anxiety (when the machine logic becomes oppressive or nonsensical). Thus, readers might find themselves comforted by a well-oiled plot that ties up every loose end (the detective novel's pleasure, aligning with an ideology that reality is knowable and just), or conversely, disturbed by an over-determined plot that allows no freedom (aligning with an anti-authoritarian ideology).

Our analysis also shows that literature doesn't operate in isolation when employing machine metaphors; it converses with philosophy, art, and science. Recall Tinguely's art and Rube Goldberg's cartoons – literary authors certainly draw from these cultural touchstones. When an author describes a bureaucratic process as a "*Rube Goldberg machine of paperwork*", they instantly evoke that entire concept of absurd, contrived complexity, inviting the reader to laugh at or lament the situation. This is an interdisciplinary borrowing of an engineering joke to make a social point. Likewise, philosophical ideas like Kapp's projections or Simondon's warnings can be found echoed in literature. A character in a novel might explicitly say: "*We created the Machine in our image, and now it re-creates us in its*" [3, p. 20], which is essentially Kapp's theory distilled in dialogue form. Such moments show the permeability between theoretical discourses and narrative art. Media archaeology's findings that old technologies reappear in new forms can also appear as themes – e.g., a steampunk novel might intentionally use clockwork (an old tech) in a futuristic setting to comment on the cyclical nature of our machine fascination. For readers familiar with these theories or histories, the literature provides a richer experience (connecting concept to example), and even for those not explicitly aware, the narrative can serve as a kind of experiential philosophy or cultural critique.

Ultimately, the analysis shows that the machine in literature is a multifaceted metaphor that can either *constrain* or *liberate* thought, often doing both within a single work. Its power to manipulate consciousness lies in its ability to tap into the deep currents of how we perceive reality in a technologized world. By reading these machine-laden narratives, we as readers undergo a kind of mental calibration – sometimes becoming more machine-like in our reading habits, other times awakening to a fresh awareness of our own humanity by contrast. This dynamic interplay is at the heart of techno-modern literary experience.

Conclusion

Through the research results, we identified concrete ways literature of techno-modernity embeds mechanical logic: in narrative structures that behave like algorithms or puzzles, in characters who are machines or whose minds are mechanized, in dystopian worlds that operate as social machines, and in

stylistic choices that reflect engineering principles. These results demonstrate that machine metaphorics can permeate every level of a literary text. The analysis then interpreted these findings, arguing that such metaphors fundamentally act as frameworks that guide readers' cognitive and emotional responses. Whether by reinforcing an ideology of rational control or by subverting it to highlight the value of human spontaneity, the machine metaphors were seen to *model consciousness* – sometimes gently (as with a puzzle that trains logical thinking), sometimes forcefully (as with a disturbing deterministic scenario from which one can't mentally escape). The analysis also emphasized the dual nature of this phenomenon: machine metaphors can both clarify and obscure, both liberate thought (by providing models and structure) and limit thought (by imposing too rigid a model).

In conclusion, the machine has become a kind of meta-character in techno-modern literature – an unseen presence that shapes narrative worldviews. Authors like Gustafsson use the notion of an "invisible machine" running the world to evoke the contemporary feeling that unseen algorithms and systems govern much of life[28]. This evokes a consciousness that is at once in awe and in apprehension of the rational structures enveloping us. Meanwhile, artists like Tinguely and the idea of Rube Goldberg machines inspire writers to reflect on the *absurdity* inherent in systems that pretend to pure rationality but often result in folly [15]. The machine metaphor thus becomes a tool of irony and critique, as much as one of enlightenment and rigor.

The machine metaphors remind us that much of our consciousness has been externalized into our inventions (Kapp's insight), and now those inventions re-internalize into our thinking patterns (Kittler's and Simondon's observations [4, 6]). Literature gives us a unique space to explore this loop with nuance and creativity. It can stage scenarios to test the boundaries of machine logic versus human unpredictability. It can instill in readers a sense of what it's like to be a cog – and thereby fuel the desire *not* to be just a cog.

Future research could extend this interdisciplinary inquiry by examining reader response studies – how do different audiences actually react cognitively and emotionally to heavily mechanized narratives? Another avenue is comparing Eastern and Western literatures of techno-modernity, to see if cultural differences in metaphor traditions (e.g., Buddhist conceptions of the self as an illusion might interact differently with machine metaphors than Western individualism does). Additionally, as AI language models (ironically, *actual* machines producing text) become more prevalent, the line between *literature about machines* and *literature by machines* may blur, raising new questions about authorship, creativity, and consciousness.

As long as technology continues to evolve at pace, we will need metaphors to understand its impact. And few metaphors are as recursively fitting as the machine itself – it is both the subject and the means of understanding the subject. In the literature of techno-modernity, we find our minds repeatedly drawn into mechanical analogies, only to emerge with a sharper or altered awareness of how those analogies are shaping us. In reading the machine, we come to read ourselves.

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INFORMATION ABOUT AUTHOR / СВЕДЕНИЯ ОБ АВТОРЕ

Habibova Konul
Габибова Кёнул Азизага кызы
E-mail: habibovakonul@gmail.com
ORCID: https://orcid.org/0000-0001-8502-229X

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