



<https://doi.org/10.48417/technolang.2025.03.09>

Research article

The Machines and Beyond

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Abstract

This essay presents observations concerning the evolving relationship between humanity, technology, and nature through the lens of Lars Gustafsson's poetry. It traces a trajectory beginning with the poem "The Machines," which portrays a mechanistic worldview where humans and machines are co-participants in a mechanical, puppet-like existence, offering a "peculiar consolation" in a shared lack of secrets. The text then moves to "The Wright Brothers Visit Kitty Hawk," identified as a crucial "bridge" that disrupts this mechanical unity by introducing a moral dimension. This poem introduces concepts of guilt and responsibility (against the backdrop of a "Gnostic darkness"), casting humans as moral agents who can use technology for good or evil. Finally, the article examines "Polhem's Ore Hoist" as the "overcoming of the motive," where the purely mechanical gives way to a triumphant organic life and a form of natural, instinctive knowledge. The essay concludes by contrasting Gustafsson's poetic journey with contemporary transhumanist thought, which, it argues, focuses on a machine-centric view not out of a search for unity, but out of a desire to control and perfect an inadequate nature.

Keywords: Gnosis; Gnostic Darkness; Transhumanism; Human-Machine relations

Citation: Gammel, S. (2025). The Machines and Beyond. *Technology and Language*, 6(3), 125-133.

<https://doi.org/10.48417/technolang.2025.03.09>



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УДК 1:62

<https://doi.org/10.48417/technolang.2025.03.09>

Научная статья

Машины и не только

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Аннотация

В этом эссе представлены наблюдения о меняющихся отношениях между человечеством, технологиями и природой через призму поэзии Ларса Густафссона. Прослеживается траектория, начинающаяся со стихотворения “Машины”, в котором изображается механистическое мировоззрение, где люди и машины являются соучастниками механического, кукольного существования, предлагая “своеобразное утешение” в общем отсутствии секретов. Затем текст переходит к стихотворению “Братья Райт посещают Китти Хок”, которое определяется как важный “мост”, разрушающий это механическое единство посредством введения морального измерения. В этом стихотворении вводятся понятия вины и ответственности (на фоне “гностической тьмы”), представлявшие людей как моральных агентов, способных использовать технологии во благо или во зло. Наконец, в статье рассматривается стихотворение “Рудный подъёмник Полхема” как “преодоление мотива”, где чисто механическое уступает место торжествующей органической жизни и форме естественного, инстинктивного знания. В заключение эссе проводится сопоставление поэтического пути Густафссона с современной трансгуманистической мыслью, которая, как утверждается, фокусируется на машиноцентричном взгляде не из-за поиска единства, а из-за желания контролировать и совершенствовать несовершенную природу.

Ключевые слова: Гнозис, Гностическая тьма, Трансгуманизм, Отношения человека и машины

Для цитирования: Gammel, S. The Machines and Beyond // Technology and Language. 2025. № 6(3). P. 125-133. <https://doi.org/10.48417/technolang.2025.03.09>



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IN FRONT OF THE BRIDGE

Beyond aesthetic appreciation, philosophical debate, or historical interpretation, poems also speak directly to the reader – how do we, as contemporaries in the first half of the 21st century, react to Gustafsson's poem with our own experiences of machines, and what considerations and thoughts does it trigger? *Does (or do?)* "The Machines" speak to us? Poems – word structures assembled by the machine of grammar (to tie in with thoughts from "The Machines") – do not become homeless, even if they may become foreign. They still speak, and if they speak a (now) foreign language, the mechanism that reads them into me will certainly find its way to thought.

At the beginning, Gustafsson describes machines from past centuries that have become homeless, some of which are still known as distant ancestors of today's technology, while others have disappeared from memory, and Gustafsson himself provides information about them: he has written an essay to accompany his poem, which is included in some editions. This essay not only describes the location of the poem in more detail. It is "completely equal to the poem. Step by step, it shows the author's journey, just as, in a different mode of transportation, the poem draws the reader along step by step. The author just approaches the concept that suits him from two different writing possibilities," as Walter Höllerer (1967, p. 9, translation S.G.) notes.

"Heron's steam ball" or the "Voltaic Pile," the playful Renaissance apparatus for warming the feet, the "pneumatic winnower," etc. – some things are memorable, some are curiosities. Gustafsson is particularly fond of "the great pit winder in Falun" and "the flat-rod system" – large, space-consuming machines, the latter covering an entire region for energy transmission. The former, "the great pit winder," is a construction by Swedish inventor and scientist Christopher Polhem (1661-1751), whose roaring, jerky machines Gustafsson found particularly fascinating. Here, what Gustafsson is interested in when it comes to machines becomes tangible:

For Gustafsson, the significance of the machines lies not in their function but in their appearance; machines do not have life, but they move as if they did: in other words, they simulate life. This bothers us, says Gustafsson, because it suggests the possibility that our own lives are simulated in a similar manner. (Luttröpp Sandström, 1972, p. 213)

In the second part of the poem, the grammar section (beginning with „A foreign language that no one has spoken. / And strictly speaking: / Grammar itself is a machine ...“), which according to Gustafsson is inspired by Noam Chomsky's grammar theory, „words are compared to machines and also to people; consequently, people also end up being compared to machines.“ (Luttröpp Sandström, 1972, p. 213) While in the first part „people, small as flies“ are transported by the big machine, in the second part it is „words, small as flies.“ In addition:

„Den friska instrumenten [keen instruments]“, „födslodelarna“ [parts of childbirth], ... can have reference to three kinds of mechanical functions: of machines, of speech organs, and of sexual organs. Man is then depicted as being mechanical in all his acts, even those supposedly most „natural.“ The poem's



emphasis, however, is on the mechanical nature of speech. (Luttrupp Sandstroem, 1972, p. 214)

So man is a mechanical puppet that simulates life, just like the machine, just like communication, none of which mean anything: „But language for Gustafsson is not simply objective and impersonal, it is mechanical. It is just as reasonable, he argues, to suppose that language thinks in us as it is to suppose that we think in it.“ (Luttrupp Sandstroem, 1972, p. 214)

But from today’s perspective, is Gustafsson’s collection of antique machines still necessary to make the essence of mechanics tangible? It seems so, perhaps even more so than in the 1960s.

In many university computer science departments, there are display cases in the hallways showing the history of the development and evolution of the computer through exhibits. Machines from the 1970s usually mark the beginning, but depending on the definition of „computer,“ there are also computers from the time when Gustafsson’s poem was published. Without the accompanying descriptions of their (from today’s perspective ridiculously low) computing and storage power, they reveal little – keyboards in various shapes, cases in various muted colors, dark glass windows in various formats. The „mechanical nature“ that, according to Gustafsson, can be experienced in its rawness through the antiquated machines is hidden and does not even peek out from the circuits (can one even speak of mechanics anymore?). And if you were to tear the computers out of their glass sarcophagi (or silicophagi?) to look inside their guts – what would you experience, even if you reconnected them to their lifeblood, electricity? And the broken corpses of their relatives in the garbage dumps of developing countries do not sink back into the dust as easily as Polhem’s most impressive machines.

The smartphone that most people hold in their hands all the time is, in terms of the transparency of the processes going on inside it, more comparable to a magical object. The machine, the calculating machine, mutated into the digital machine, has shed its home and leads its life virtually in secret, in all kinds of everyday objects, inhabiting traditional machines such as washing machines or coffee machines (ubiquitous computing / internet of things). Artificial intelligence, neural networks, machine learning, large language models (and the accompanying new discoveries in neuroscience) are far more powerful – both in reality and as figures of speech – than Chomsky’s grammar machine. They correlate words according to the changing rules of their art, speaking like a human being who does not speak, but in whom it speaks.¹ In his essay, Gustafsson talks about language thinking within us, language being like a parasitic fungus that penetrates the host cell – *or language could be seen as a huge invisible mechanical process.*

His poem „Homunculus,“ which also deals with humans as puppets, explores the possibility that humans are merely machines, their internal organs merely machine parts:² „But suppose those same lungs, kidneys, memories were / Artificial, made by a completely natural but still / Artificial process, by external means?“ Made by a

¹ With this assumption, he would be preaching to the choir in many Asian spiritual traditions.

² It is reminiscent of Fritz Kahn's „Der Mensch als Industriepalast“ (Man as an Industrial Palace) from 1926.



completely natural but still artificial process? Biofacts (see Karafyllis, 2007) come to mind, genetically modified or created organisms, natural, alive, growing, but still artifacts. Here, too, new dimensions have emerged in the course of technical development – as with the entire „machine fleet“ that will one day, in the nanometer range, supposedly perform its services beyond the reach of the human senses.

This list could be expanded considerably, and beneath the surface, which has only been touched upon here, there is an enormous degree of complexity, but that would go beyond the scope of this text. Does Gustafsson’s poem still mean anything to us today, despite all these developments?

In the „Literarische Colloquium Berlin“ for the winter of 1966/67, Hans Magnus Enzensberger, who translated Gustafsson’s poems into German, introduced the poet, who presented both „The Machines“ and the accompanying essay, saying:

Gustafsson has – and how many poets can you say that about? – thoroughly studied formal logic, the philosophy of everyday language, and the rigorous labyrinths of Anglo-Saxon epistemology. And you will soon hear how this knowledge comes to the aid of the poem. It dispels old mysteries and leads to a clarity that is ‘peculiar’, so peculiar that a rare prize appears in the cool, clear mirror of the poem: something logical that is not dry, and something fantastical that is not murky. The logical fantasy, the fantastical logic of the peculiar Mr. Gustafsson from Uppsala. (Quoted in Höllerer, 1967, p. 10, translation S.G.)

The cool, clear mirror is still there. From a (perhaps somewhat special) perspective, Gustafsson’s poem itself is now a machine from another time, showing us a question in the mirror that is still valid today, with its transition from the beginnings of machine technology to Chomsky’s venerable grammar machine theory to the puppet-like nature of human beings (i.e., it definitely means something) – a question that, given the pervasive spread of the mechanical around us and the dissolution of the machine into its surroundings, rarely comes to mind with such clarity.

ON THE BRIDGE

„The Machines“ leads us and the poet to an existential zero point. For some, it would be a depressing idea – namely, to be just a puppet in a machine-like environment with machine-like, impersonal communication. According to Gustafsson, however, the poem seeks comfort precisely in this, because what connects people may reach deep into the mechanics and be peculiar, but it is also this: a commonality.

From this point of view, the tragic thing about humanity is not that it is shut out, that something separates it from life. nor that its words do not reach their destination. The tragic thing about humanity, as also about machines, is that it does not have any secrets. (Gustafsson, 2025, p. 124)

Humans are neither trapped in a dark machinery from which they cannot escape, nor are they – as puppets – excluded from a possible other life – and therein lies a peculiar consolation. So there is no secret, and on the one hand this is a kind of consolation – on



the other hand, this is also the tragedy of humans and machines. But, one might ask Gustafsson, isn't „tragedy“ an empty word in such a world, in such an existence? Is there a form of resignation behind the consolation of „The Machines,“ or does the tragic contain the seed for a movement away from the zero point in another direction?

Luttrupp Sandstroem (1972) draws our attention to a change in the machine motif in some of Gustafsson's poems. In the poem „The Wright Brothers Visit Kitty Hawk“ (1967), which appeared after „The Machines,“ a change in the relationship between humans and technology (and nature) seems to be taking place.

Enquist (1971), who corresponded personally with Gustafsson about the poem, provides some information on the context in which it was written, including Gustafsson's preoccupation with the *innocent* art of kite flying, his reading of Irving's book on the bombing of Dresden, and the political events of the time – the discussions about the Vietnam War. He also explains the elements of the poem (from the kite motif to Bakunin, Milton Wright, and Lilienthal), including information that comes directly from Gustafsson.

We are particularly interested in the „Gnostic darkness“ that a monotonous voice whispers as a „warning“ at the very beginning of the poem during the flight of the kite, and which recurs at the end of the poem („Dresden. Hanoi. And 'the Gnostic darkness.'") This opens up a moral perspective – humans are no longer part of the machine theater that leaves no room for morality; they step out of this theater and relate to nature as well as to machinery, using it – innocently to fly kites, culpably to destroy. Compared to the previous poem, this creates a tension:

The problem with those two poems [...] is, it seems to me, the assignment of guilt. If objects are guiltless, man, viewed as a marionette, must share in their guiltlessness. We either have to suppose that the mechanistic view of man obtains in „Maskinerna“ but not in „Kitty Hawk“ – in which case man's experiments with scientific objects make him responsible for the uses to which inventions of various kinds have been put – or, if man remains a marionette, the responsibility must be assigned to some impersonal force (since Gustafsson discounts the possibility of a theistic universe) such as the „forces of history.“ (Luttrupp Sandstroem, 1972, p. 217)

In private correspondence with Sandstroem, Gustafsson offers a surprisingly simple explanation for this: since „The Machines,“ he has simply changed his mind – he no longer sees humans as machines. Here, too, there is no secret that would mysteriously harmonize both positions in the background.

In correspondence with Enquist (1971) on „Gnostic darkness,“ Gustafsson himself provides the following information: Gnostic darkness ...

... is therefore the darkness from which, according to Gnosticism, the demiurge creates our world, which is therefore a lower world. Here: the darkness behind humans, the darkness behind good and evil. Compare Theodor Lessing's words: making the meaningless meaningful. Values exist in the world of humans, behind



which lies amoral nature, and this is darkness. Our scientific discoveries, such as the airplane, take place at this boundary. (p. 243)³

A general, greatly simplified summary of Gnosticism as a religious system could be: a monadic, inexpressible good God stands in opposition to a bad or evil material world that was created and is ruled by a demiurge. Humans must recognize and develop the *pneuma* dwelling within them, which comes from the good God, and climb up to it, leaving physicality and material attachments behind. Accordingly, Gnostic representations (varying in some cases) distinguish between the types of people known as sarkics (attached to the flesh), psychics (attached to reason), and pneumatics (those striving for salvation).

It would be inappropriate and wrong to try to impose a complete religious system on Gustafsson at this point – he limits himself to Gnostic *darkness*. One could read the stages of the steady progress of aviation technology in the poem as stages of emanation that move further and further away from the ‘good’, the innocent (kite), to end in the bombing of Dresden and Hanoi. The question of who the demiurge is who created the amoral darkness behind humanity is irrelevant to Gustafsson, as is the question of the ‘good God’ who may not even exist. In fact, the poem can be read rather pessimistically – morality, the question of guilt, has caused a Gnostic rift in the world, tearing humans out of the comforting machine community and driving a wedge between them and the machine theater. The wedge is guilt (power, responsibility).

ON THE OTHER SIDE

Luttrupp Sandstroem (1972) sees „Kitty Hawk“ as „an important bridge between the mechanistic view of man exemplified in the earlier poetry and what Gustafsson calls ‘detta motivs övervinnande’ [the overcoming of the motive]“ (p. 217). Where does this „bridge“ lead? It leads to a later poem by Gustafsson, namely „Polhem’s Ore Hoist.“ Here we encounter Christopher Polhem again, who in „The Machines“ had contributed an impressive apparatus to the machine and puppet park, but in a surprising new way.

In the first four verses, he takes center stage, thinking that mechanics are „an alphabet, / The Writing of the new time, that would fill the world, / And drew through a vast landscape / His *arts*, crank shafts, rolling mills, / ...“. His machine dominates the first four stanzas, but at the end of the fourth, in the transition to the fifth, something changes: „A sound, as of great powers, was heard: it was man / Ruling the world for a few short days ...“ – just a few short days, and then?

Then the poem moves on to the fetus, which as a microcosm is connected to everything, even distant galaxies, the macrocosm. „The fetus knows,“ it possesses a natural knowledge, a knowledge rooted in life itself, of all connections. Polhem appears

³ The Swedish original, in which Enquist quotes from a letter by Gustafsson: “Det gnostiska mörkret ‘är alltså det mörker ur vilken Demiurgen enligt *gnosis* skapar vår värld, som alltså är en undre värld. Här: mörkret bortom människan, mörkret bortom gott och ont. Jämför Theodor Lessings ord: das sinnlose [sic!] sinnvoll machen. Värdena finns i människans värld, bortom den är den amoraliska naturen, och den är ett mörker. Invid denna gräns utspelas våra vetenskapliga upptäckter, t. ex. den av flygmaskinen.” (Enquist, 1971, p. 243, translation into English S.G.)



again, only this time „in a light green birch wood,“ listening to the „song of a cuckoo in May”, his machine having crumbled to dust. A beautiful unknown woman knows the secrets, the mystery of the universe, and that „The great Ore Hoist was nothing but a dream.“

Here the ingenious invention has been reduced to a pile of lumber and some rusty iron scraps; animate life has come into its own. The ignorance of mechanical life, even about its own disintegration, is contrasted with the instinctive knowledge of triumphant organic life. The fetus hears the sounds of the heavens and knows them for what they are [...] Polhem himself has abandoned invention in order to listen to the song of the cuckoo in the birchwood [...] man-as-machine has turned into man participating in the knowledge of nature. The controlling image [...] is not mechanical but human; the lady shares and perhaps surpasses the instinctive knowledge of the fetus and the birds; she knows ... (Luttropp Sandstroem, 1972, p. 219)

Where has this little walk across the bridge with Gustafsson (and Sandstroem) taken us? Or to put it another way: what have we seen?

Gustafsson's example reveals three possible ways in which humans can relate to technology (to the mechanical) and to nature. The journey took us from a peculiarly comforting community between puppets and machines (held together by a mechanical language common to all) to the loss of this community through a guilt-induced separation of humans as moral subjects (who can use machines for good or evil) to a new form of community that is now sustained by organic life.

This is not to suggest that Gustafsson's personal development is described here, nor that these are the only relationships that humans can have with machines and nature (or that crossing the bridge must necessarily take place in this order). However, poetry can inspire us to explore our own sense of being in the world and in technology against this backdrop.

Finally, it should be mentioned that Gnostic darkness can also take a completely different form, as exemplified by modern techno-futurism: transhumanists and posthumanists are an important movement in the current discussion about new and emerging technologies, especially nanotechnology. With their visions of improving humanity (and nature) through radical technical interventions, they influence ethical debates on what technology is, what it can do, and what it should be used for.

For transhumanists, humans are also machines, biological ones (*wetware*), just as ultimately everything can be understood more or less as a machine or information pattern. However, for transhumanists, humans do not fall out of the unity of the machine theater out of *guilt*, but out of *fear* of being at the mercy of an indifferent nature. Nature is seen as an inadequate demiurge, from whose reins humans, by making use of technology, seize control and shape everything in its place, above all themselves, into a more perfect, *the* perfect machine (here the motif of driven hedonism is added). One could say that they do not go beyond the darkness of Gnosticism, but rather turn back towards the machine park – with a vengeance.



The topic is too complex to explore further here. But it can be said that, from a transhumanist perspective, Gustafsson's „Kitty Hawk“ would not stop at Hanoi and the question of guilt, but would end in a conquest of space. And would a transhumanist reading of „Polhem's Ore Hoist“ be possible? A reading in which Polhem's crude machines also sink into the dust, but the triumphant organic life, the connectedness of the fetus, the singing cuckoo, and everything else spring precisely from the wisdom of a triumphant Polhem, who has subjugated all this as machines through the progress of science?

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Статья поступила 29 июня 2025
одобрена после рецензирования 4 сентября 2025
принята к публикации 22 сентября 2025

Received: 29 June 2025
Revised: 4 September 2025
Accepted: 22 September 2025