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The AI revolution Ended Yesterday. A Story about Obsolescent Machines

Abstract: Manifested as an attractive science fiction trope, the fear that artificial intelligence is going to be at war with homo sapiens, that human beings might be replaced by their own creations, are cultural anxieties amplified by the technologies of the new millennium, with various autonomous systems driven by AI taking over our lives. Artificial intelligence seems to be everywhere, apparently changing humanity and even evolution. Overviewing three recent productions, *Atlas* (2024), *The Creator* (2023) and *The Beast* (2023), used as examples for showcasing a different approaches to problems related to machine intelligence, military power, political systems and human emotions, this contribution explores the various possible expressions of our deep distrust towards intelligent machines. Using a version of Deleuze and Guattari's "nomadology", the author proposes a NOMAD(ID)eological interpretation, a distinct methodological approach dealing with "nomadic" transformations of the future of mankind. As indicated by the evolution of the cinematic machine patented by the Lumière brothers in 1864, we must observe that there is an inherent technological plateau for all human technologies. After 160 years existence, we are basically using the same cinema apparatus and, just as the "cinematographic revolution" faded from its very invention, the author suggests that the "AI revolution" has simultaneously reached its peak and utter end. The

conclusion of this contribution, based on the theory of stagnation, remains that our fears about AI are based on the false premise that this new technology will result in an unexpected outcome. Using the comparison with the cinematic machine, AI technologies have reached their evolution potential from the very moment they were created, they are capable of endlessly generating parrot-like texts, allowing us to create funny images and videos, amusing us with their mimetic potential and incessantly calculating data that humans have created in the past.

Keywords: Nomadology, Artificial intelligence, technological stagnation, techno-anxieties, cyberfeminism, science fiction films, *Atlas* (2024), *The Creator* (2023), *The Beast* (2023).

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The history of cinema provides a multitude of examples, issues, problems and questions related to Artificial Intelligence (AI), the association between new technologies and old human anxieties is as the invention of the “cinématographe”. The device that produced moving images was itself a result of the development of automated machines, a connection partly studied by film archeology (Elsaesser 1990), genealogically linked with the efforts to technically recreate life. The cinema apparatus with its inherent power over life and death, connects the myths of Prometheus, Faust, or Frankenstein, with the inventions of Edison and the Lumière brothers (1–2). This connection explains in part the attraction between the cinema-machine and the intelligence machines today, the archeological method indicating a non-chronological link of various media practices from the early cinema to the contemporary digital tools (Elsaesser 2004).

There are many remarkable filmmakers and relevant film theorists discussing these connections, with one of the earliest and most fecund speculations put forward by Jean Epstein (1946). This French avant-garde filmmaker and theorist suggested that cinema was a form of intelligence providing a form of “machine intelligence”, the cinematograph was able to generate a *robot-brain* philosophy (“philosophie d’un cerveau-robot”). Epstein (71) predicted that movies were able to create thinking, with the cinematic machine working as a *thinking machine* (“machine à penser”), providing humanity with “diabolical” thoughts. The definitions about the devilish nature of cinema (“Le Cinéma du diable”) are related to his own anti-dogmatic and libertarian views. Movies are “diabolical” forms of thinking because they are liberating us from the “despotic expansion of logic” (325), derived from Cartesian thinking. In this sense the philosophic nature of the cinematic machine is anti-philosophical, it opposes what we usually understand by “thinking” in Western culture.

While this French theorist believed that cinema was a *thinking machine* linked with the powers of unconscious, his essays sharing many other remarkable intuitions about the forms of philosophy produced by this new machine and the possible development of what he describes as “a second reason”, my approach to machinic thinking is not metaphysical. Rational thinking and the reasoning based on cause and effect are still dominant forms of cinematographic narration, while the cinema machine can take humanity to unfamiliar places, movies are always related to the material conditions in society. Films have the ability to change our knowledge, by creating completely new experiences within their sensorial realm, but they are also generated by specific cultural and social experiences.

Epstein (46–7), who associated the cinematic with the notion of “photogénie”, considered that “film thinking” had its own “genius”—in French the “photographic genius” of the movie camera and the “photogenic” characteristic are homophonic words. The claim that the cinematic machine can generate its own ideas, derived from the fact that cinema functions as a new “thinking machine” cannot be separated from modernity. It is the modern world which is characterised by a new philosophical mode, resulting in a “multi-sensorial”

experience created by cinema, not the other way around. Movies can open a pathway to what Epstein called the fourth dimension (la quatrième dimension), but, while cinema is operating as an “anti-logical” machine, it is also affected by technological transformation, which can provide a completely different form of thinking than the traditional film philosophy.

This dual influence is explicit today, when several new issues related to the impact of the new “thinking machines” and the cinematic creative processes are affecting film productions. Mega-companies like 20th Century Fox are using AI-based platforms (the AI named Merlin Video) to predict box office revenues, thus movies are made with the help of intelligent machines predicting possible revenues. With film production increasingly involving artificial intelligence and automated algorithms many are afraid that the new technologies are endangering creativity and the jobs of writers and other workers in the industry. Recent unionized protests demanding that AI must be kept under the control of humans indicate these anxieties. The demands of the members of the Writers Guild of America (WGA), and by other groups in movie making industry affected by AI, increase the fear factor about the expansion of learning machines, such as ChatGPT or Google Bard, who are capable of generating human-like conversations. By preventing the studios to use humans as mere “correctors” of scripts created by using AI tools, demanding human writers only to “adjust” or “complete” what the machines have created, the workers in these industries are displaying a form of resistance against AI already present in the content of their creations. The actors’ unions like Sag-Aftra are concerned about AI generated characters, and the creation of “digital doubles” or the generation of “digital voices” already replacing real human beings. AI cinematography represents another problem, as artificial intelligence algorithms are capable to generate video from text, thus autonomously generating cinematic settings based on mechanics they are trained to imitate.

All these issues are important, however my analysis does not address the practices and the practical problems raised by AI technologies in cinema. Focusing on existential and philosophical problems, my interpretation is based on the assumption that films are “cultural texts”, relevant not only for understanding particular narratives or processes, but also as pathways to explain external mechanisms which are driving our politics, society and ideologies.

The three recent productions discussed here—*Atlas* (dir. 2024), *The Creator* (2023) and *The Beast* (dir. 2023)—were selected for their distinct treatment of AI, each film showcasing a different approach to the ancient problems related to machine intelligence, to military power and our political systems, to human emotions and relationships. *The Creator* (2023) raises questions related to the militarism and cultural conflicts, not only the relationships between man and machines; *Atlas* (2024) is as an exploration of the deep distrust humans share when confronted with intelligent machines; *The Beast* (2023) is used as a window into understanding how human emotions are related to AI development. These films are

considered illustrative of the complex quandaries we experience today, answers to “old” problems placed in “new” contexts.

Exponentialist and stagnationist explanations and anxieties

When IBM’s Deep Blue computer defeated the grandmaster Garry Kasparov in an notorious rematch chess game in 1997, which later the Russian undisputed world champion claimed to be rigged, as stated in Vikram Jayanti’s documentary *Game Over: Kasparov and the Machine* (2003), the world gasped in fear. While Kasparov believed that “unseen forces” were involved, that other chess masters were part of his defeat (he suspected “Karpov” like moves), global media claimed that “superintelligent computers” surpassing human mind. Later, in a book describing the events, Kasparov (2017) nuanced his position and suggested that intelligent machines are good for humanity, human and computer cooperation representing the future. The same happened in 2015, when Google’s AlphaGo managed to win a game of Go against the world champion, Lee Se-dol. Today children all over the world play computerized chess games and Go, these fearful machines became toys.

Nevertheless, based partially on these extraordinary results, some supporters of exponentialism predicted that, in a few decades, AI machines were going to overcome human beings in all aspects. In 2005 Ray Kurzweil predicted that “Singularity” was about to become a reality, suggesting that by 2045 intelligent machines will reach a point of no return, becoming more intelligent than all human beings together, ultimately transforming the very nature of humanity. From a techno-optimist perspective Kurzweil believed that this “Singularity” was the ultimate goal of the Universe, it was going to bring not only a much needed improvement of humanity, helping human beings transcend their limitations, but also a “post-Singularity” future. After all boundaries between man and machines were going to be finally annulled, once the merger between humans and technology is finalized, an unimaginable “Epoch 6” was supposed to come. The entire Universe was going to “wake up”, saturated with intelligence. Kurzweil’s exponentialist axioms followed some age old formulas developed by Intel CEO Gordon Moore during the mid-1960s. The so called “Moore’s law”, known also as the “Exponential Laws of Computing”, claimed that machine intelligence was insuppressible. Kurzweil (1999) announced “The Age of Spiritual Machines”, anticipating an implacable outcome of the accelerated growth of computers, with the final merger between human thinking and machine intelligence by 2030, when individual computers will be as powerful as 1000 human brains.

Not all scientists shared Kurzweil’s futuristic optimism, the belief that accelerated progress and technological development follows a positive path is sometimes denounced as techno-mysticism. Joel Garreau (2005) describes a “Hell scenario”, in which the outcome

increased computer powers will lead humanity into extinction. American software developer Bill Joy (2000), considered by some the apostle of “Doom-and Gloom” technofuturism, warned that AI machines are transforming humans into an “endangered species”, obsolete creatures to be replaced by our own evil creations.

At the other end of this spectrum are the stagnationists, represented among others by American philosopher Hubert Dreyfus (1965), who famously denounced the predictions and assumptions about a continuous AI development and progress. Dreyfus (9) observed the “signs of stagnation” in AI evolution, a recurrent pattern in many other discoveries. After an initial success, followed by optimism, inevitably comes disappointment, and this is a mechanism affecting all human technologies. This philosopher of the mind associated the questions raised by artificial intelligence research with older issues, using the metaphor of alchemy. Similar pathways are linking AI and alchemy, beginning with extraordinary early claims and assumptions, then producing only limited results, ending with profound disappointments, the fall from the early enthusiasm induced by many dramatic and unexpected “difficulties”. Dreyfus (69) properly points to the fact that the allure of the infinite progress of the “Cartesian machines” was denounced centuries ago Descartes himself, who compared to the infinity of manifestations made possible by the “human machine” and the mechanical finitude of any automaton. AI researchers are also hypnotized by their apparent successes, like the ancient alchemists who thought they were about to transform dirt into gold, believing they can “transmute” metals. While we might still believe we can turn machines into superintelligent being, like the scientists who ultimately found a way to transform lead into gold, but discovered that changing one element into another implies immense quantities of energy, the same is true with AI. By 2023 Microsoft and Google’s electricity consumption surpassed 24 TWh of power, which makes maintaining even the simplest AI services running a ridiculously expensive attempt.

As argued by French cognitive neuroscientist Stanislas Dehaene (2020) these apocalyptic prophecies about the potential overcoming of humanity by intelligent machines are far from reality. While the advances in machine learning and the development of artificial neural networks are important and have the potential to impact society, the limitations of the “thinking machines” are obvious when compared to the capacities of human brains. Even the most performant learning algorithm can only mimic a small part of our brain capacities and, without the capacity to self-reflect, such “intelligent machines” are nothing more than infants, limited by the very nature of their machinery. No matter how spectacular their manifestations, these “intelligent” machines are not able to perform more than simplistic operations, with their autonomy in space limited by access to electricity and their computing capacity determined by accessing human made networks. They are no more than “avatars”, biproducts of the “Darwinian algorithm”, which Dehaene associates with the brain generated by natural selection.

Other scientists are promoting nightmare scenarios, envisioning apocalyptic futures and promoting variations of a pessimistic techno-prophetism. In his most recent bestseller, historian Yuval Noah Harari (2024) is spouting premonitions about artificial intelligence like the prophets living in the ancient deserts. Harari, sometimes using the historical method, other times just announcing foreseeable dangers not only for humanity, but about extinguishing the “light of consciousness” from the entire Universe, sees the potential of AI in driving humanity towards a totalitarian future society, with machine-learning algorithms described as the dream of all the “Stalins of the world”. Ultimately this author anticipates the AI would be compelled to “grab power to itself”. Perhaps Harari watched for too many times Kubrick’s *2001: Space Odyssey* and is mingling HAL with his own intellectual presuppositions about the future AI Hell. The “Nexus”, as a place where information binds society, a point in human history which can be controlled by AI, defined as “the most powerful information technology”, does not exist.

While there is an undisputed role played by “the rise of AI” in our political environments, with social networks and platforms influencing decision making processes, there is hardly any evidence to confirm Harari’s anxieties about nonhuman creatures who can generate ideas for the first time in the history of our planet. No matter how influential artificial intelligence might be, a foreseeable future where a new totalitarianism could be imposed is not going to be driven by AI, but by flesh and blood humans, who can exercise control over these algorithms.

More disappointing are Harari’s claims that History is not driven by deterministic powers, suggesting instead that stories are driving historical events. This history professor at the Hebrew University of Jerusalem, sketches a “brief” history of totalitarianism, arguing, among other things, that Hitler won the 1933 elections in Germany because his countrymen believed his narrative, choosing this instead of other “competing” narratives. Other explanations are also questionable, as is the suggestion that populism uses information to gain power, when in fact populism is altering information in order to maintain its appeal. Also, the paradoxical identification of right-wing populism with Marxism and the comparison between the Iron Curtain and the anticipated “Silicon Curtain” falling over the world in the future, with AI driven bureaucracies and algorithms creating new mythologies autonomously, are far-fetched speculations.

Extremely doubtful are, however, the parallels this historian establishes between ancient Roman society and contemporary democracy. Rome was never a democracy, and the change in the balance of power towards the imperium was not the result of lacking “self-correcting” mechanisms, it was the end result of political populism. Caracalla was not an autocrat “undermining” some high democratic ideals, neither was Pompeii a city where democracy existed. Actually Pompeian “elections” were based on a very small number of citizens who were allowed to vote, not only male residents, who were divided into strict

districts, but epigraphic research shows that only a small number of very rich families could provide candidates for these elections (Mouritsen 1988). When a relatively minor elite is making political decision in a city, the role of “the people” becomes insignificant. In claims that no Roman emperor was toppled by a democratic revolution, like the one that removed Nicolae Ceausescu from power, when in fact Marc Antony used the Roman mob to defeat the legitimate rulers of the Republic, represented by Brutus and Cassius. More so as he was following the example of the Gracchi brothers, who were the first populists, and who instigated mobs preventing the Senate to pass laws. Just as the actions of Marc Antony are comparable to Donald Trump’s mob attacking the Capitol of the “New Rome”, the populist practices today are the same as those which lead to the ultimate destruction of the Roman Republic, not “information” or the control over narratives.

In fact, as French philosopher of technology and journalist Apolline Guillot (2024) observed, in reality nothing is happening with AI, our fantasies about AI domination and the risks or dangers represented by artificial intelligence systems are only that, mere confabulations. The never-ending debate about the infernal dangers and the “existential risks” posed by AI is a global “psychodrama” put on stage by billionaires and apocalyptic researchers which has led to nothing. Artificial intelligence systems are not going where we expect them and actually the history of AI indicates a constant “downward” trend, followed by constant “revaluations”. The monster of artificial intelligence some Nobel awarded scientists warned us about, adds to really nothing.

Thinking machines that make humans think

In February 2024 multi-billionaire Elon Musk, the richest person on Earth today, announced publicly that his project called Neuralink, which involved implanting microchips in the human brain, has found a first human recipient. Noland Arbaugh, 30-year-old quadriplegic man, accepted to be implanted with the Neuralink device called “The Link”, which allowed him to move a computer mouse on a screen by simply thinking (Reuters 2024), the patient quickly recovered from the procedure and was later able to play online computer games. This extraordinary link between human brain and computers, preceded by the first implant using a brain–spine interface (BSI), allowing a paralysed man to walk again (Lorach et al. 2023), was hailed as the initial step towards overcoming the limitations of the human mind.

As machines are now helping us to think, as noted by Paul M. Abraham and Stuart Kenter (1978) when discussing L. Frank Baum’s “mechanical man” named Tik-Tok (who also inspired the name of the popular digital platform), “artificial intelligence” has always generated ideas, once we start using the concept of AI we are confronted with fundamental

problems and we start generating answers. Even when artificial intelligence is represented by fictional beings, either as manmade humanoids, automatons or cyborgs, various robots or androids, innumerable questions are raised about the nature of life or the human mind, about sex and death are generated, all linked with a long tradition in mythology, literature, art and philosophy. Basically, thinking machines compel humans to think.

This ideational relationship between man and machine, was previously pointed out by Norbert Wiener (1964), the godfather of cybernetics. The thinking machines we have created are coupled with several metaphysical concerns, many of these concerns deeply rooted in our subconscious, part of our collective psyche. Some of these anxieties are manifestations of the infantile complex, one which equivocates our own limits and incapacities with the power and control exercised over us by other creatures, who seem to have more knowledge and capacities than us. This American mathematician, who was related to Maimonides, associated the anxieties related to autonomous machines and our fears for artificial creatures that learn and can self-reproduce with the myth of the Golem and our understanding of divinity. Superlatives such as “Omnipotence” or “Omniscience”, are amplified qualities we normally associate with “humanity”. For Wiener (52) the God-Golem metaphor is associated with the modern scientists “playing God” when using the “magic” of automatization committing the sins of e Simony and Sorcery. Just as the fictional beings or imaginary creatures from mythology help us understand the dangers threatening “mankind”, the new man-like machines we have created are manifestations of our ancestral anxieties, but also of our most recent problems.

Such questions, related to the God—Golem complex and the associated Simony—Sorcery „sins”, are frequently addressed by moviemakers. Many of these narrations share a direct correlation with various other “smart machines” created at a particular time in history. With dozens of movies populated by various artificial creatures, we are dealing with a broad spectrum of issues, stimulating the development of specific machines, with the new technologies involving artificial intelligence representing only one of these problems. The questions about the possible lessons cinema provides in the larger debate about Artificial Intelligence

This selection of three recent productions related to AI and intelligent machines allows not only an analysis of the recent trope about intelligent machines, but also a meditation about what we are thinking today as intelligent beings. Linking these movies with our collective and individual thought processes, either as negative or positive mindsets, we can get a glimpse of humanity thinking in real time.

Cinema and (as) AI machines

This “tumultuous history” of creating and understanding artificial intelligence, to paraphrase Daniel Crevier (1992), is also mirrored by moviemakers. Innumerable films, many of them based on books and other forms of storytelling, are either exposing already known techno-anxieties or are presenting some techno-optimistic views about thinking machines. From a historical perspective it would seem that humanity keeps telling and retelling the same old stories, unchanged since the myth of Galatea and Pygmalion, clearly reinvented by Fritz Lang’s *Metropolis* (1927), or the unbelievable story of Pinocchio, as retold by Steven Spielberg in *A.I. Artificial Intelligence* (2001), or the possible creation of artificial beings protecting humanity, like in *Robocop* (1987) or *I, Robot* (2004), which are nothing more than the ancient bronze creature called Talos, also Talus or Talon, designed by Zeus to protect Crete from invaders, finally killed by Medea in the Argonauts story.

Various reimagined automata, fantastic beings created by the gods or invented by mad scientists, are populating our collective imagination, but they are nothing more than narrative devices, probably helping humanity confront its own limitations, dealing with questions related less to “intelligent machines” and more to solving problems produced by social realities. Some authors (Huckvale 2024) traced this fascination with artificial beings back to ancient Greco-Roman mythologies, considering these foundational stories about ancient fears about inanimate objects coming to life and obtaining human-like qualities, to be cautionary tales, not only “technological doubles”, but also “psychological doubles” of humanity (5), reflecting our anxieties.

My approach is based on the premise advanced by Douglas Kellner (1995), who used a semiotic perspective to analyse the implications of the war genre in cinema. When discussing films like *Rambo* (1982) or *Top Gun* (1986) we are not only reading into narrative structures or old tropes about heroic figures, we have access to understanding contemporary cultural fantasies, fears and desires. In the following interpretations I am using Kellner’s assumption that films must be decoded as “cultural texts”, relevant for explaining the relationship between the dominant forces in society, allowing a better interpretation of the interconnections shared by representations and ideology, the links between aesthetics and politics. Such connections are “inscribed” in film narratives, as movies articulate deep contradictions and drives already present in our institutions and imaginations. We must associate, for example, the second installment of the “Rambo” narrative (*Rambo: First Blood Part II* 1985), with the impact of the Reagan doctrine and the idea of US interventionism in the foreign policies of other nations (Kellner 65). For Kellner the “Reagan–Rambo” connection makes transparent the global politics of Reaganite militarism, while celebrating individualism and the myth of the heroic warrior movie characters like Sylvester Stallone, Arnold Schwarzenegger or Chuck Norris belonging to a larger “cinematic military-machine”. The “cowboy” style of

US politics globally, infamously linked to similar criminal and covert operations in many countries of the world, is manifested in a number of relevant film tropes. These movies, which associate masculinity and aggression with militarism, imperialism and even racism, are “encoded” with the ideological values created after the military defeat in Vietnam, when a cultural “remasculinization” of white identity was taking shape (Kellner 60).

Just as understanding *Rambo* allows us to go beyond immediate representations, we must recognize that the recurrent subtrope of artificial intelligence in contemporary cinema has a secondary function. These narratives, either exploring the “bad intelligence” plot or the “emotional machine” subplot, provide a pathway to understand deeper cultural mechanisms. It is relevant for this discussion that the differences between AI movies created a decade or two ago and the new narratives are illustrative of societal changes. For example, when compared to *Bicentennial Man* (1999), the adaptation of Isaac Asimov’s 1976 homonymous short story directed by Chris Columbus, with *I, Robot* (2004), the same intelligent machine discloses different social and cultural traits, dealing with different issues. As I argued in another work, when comparing Ridley Scott’s 1982 adaptation of Philip K. Dick and the new *Blade Runner 2049* directed by Denis Villeneuve, there are several transformations which indicate a shift in the evolution of our connection with artificial intelligence technologies (Pop 134).

Paula Murphy (2024), who overviews the evolution of AI narratives in cinema from the 1950s to the most recent productions, uses a historical deterministic approach, by observing that AI representations in films are connected with the evolution of scientific discoveries and discourses. This development, from the supposed “birth” of the genre during the early 1950s, to the 1980s when personal computers became available, and the 2010s, a moment in time linked with the expansion of the internet and social media, is impossible to ignore. The relationship between AI representations in films and the reality of humans creating new technologies would make cinema simply a mirror, a visual reflection of all scientific and technological discoveries. As indicated by Murphy, the movement from “strong AI” (autonomous thinking cyborgs, as in *Blade Runner*) to “easy AI” (smartphone intelligence, like in *Her*) can be explained in terms of their alignment with the evolution of human-made technologies. Since Murphy ends the historical summary of the subject with examples taken from the first decade of the 21st century, movies such as *The Machine* (2013) or *Transcendence* (2014), further investigations of the intertwining between AI and humanity is necessary.

Simulant interpretations: *The Creator*

Directed by Gareth Edwards, *The Creator* (2023) is a typical science-fiction story in which an imagined future world has human beings, robots and artificial intelligence fighting for supremacy. With humans and “Simulants” in conflict, the fracture about artificial intelligence divides the planet between the Western world, lead by the United States and a presumed New Asia alliance, supporting the use of AI advancements in daily life. The „A.I Revolution fighters” are lead by computer genius called Nirmata, who remains unknown, with the Western armies, helped by USS NOMAD (North American Orbital Mobile Aerospace Defense), an autonomous system flying in low orbit and capable of launching attacks against humans on Earth from the safety of the sky, searching for the Messiah of the machines.

Edwards, the director of *The Creator*, who also created one of the installments of the Star Wars franchise, *Rogue One* (2016), and *Godzilla* (2014), appears to be supporting the “AI resistance”, while criticising the U.S. military, a force operating from space. This in turn convinced some online critics (Elentir 2023) to describe *The Creator* as a typically “woke movie”, a result of the “Western left” doing “Beijing’s dirty work”. Edwards and his co-writer, Chris Weitz are accused of having a covert ideological purpose, demonizing Western culture and promoting East Asian and Chinese cultures. With almost all the white characters in this movie are represented as evil, even the female officer leading the US special forces, Colonel Howell (played by Allison Janney), is surreptitiously described by using the racial cliché of the killer Arian blonde, and New Asia is populated by a mixture of ethnicities, *The Creator* provides the viewers an antithetic vision of the future. Relevantly, the main protagonists are Joshua, played by an African-American male (John David Washington) and a Chinese woman (Gemma Chan), together they engender a mixed race “Saviour”, a “Simulant” Messiah.

Not everybody agrees with this evaluation, online reviewer Mo Hoosen (2023) claimed that the movie in fact perpetuates many stereotypes about Asian societies, practicing a form of “Techno-Orientalism” by associating “the East” with culturally backward societies, “othering” Asian workers as robotic, using age old stereotypes about sweatshops, overpopulation and exotic locations. Even more, *The Creator* could be related to the conspiracy theories spread during the Covid pandemic, linking the new coronavirus



with an Asian country misusing advanced technologies. The West versus The East trope, coupled with the conflict between technologically advanced Americans and primitive locals, very similar to the plot in *Avatar* (2009), are arguments for the inherent bias of this narration. The fact that in the movie we see a map of “New Asia” which shows Japan, China and other Southeast Asian countries united into a single superstate is also problematic, since this is dangerously similar to the Greater East Asia Co-Prosperity zone created by the Japanese militaristic empire during WWII.

Others, like Catholic film critic John Mulderig (2023) warned Christian believers that the topics discussed by the film, like the idea that machines have a “soul”, are easily understood from a biblical perspective, while appreciating the “peaceable agenda” of the director. Influenced by a Buddhist view of the world, with scenes shot in Cambodia, Indonesia, Nepal or Japan, Edwards describes the Asian world as an agrarian culture, characterized by a peaceful and spiritualistic attitude, while the “Westerners” are always aggressively militaristic. Yet by presenting “Asians” as a collective entity, a future world in which Asian countries are simultaneously technologically astute and culturally backward is problematic. Adding that one of the main “Simulants” is played by famous Japanese actor Ken Watanabe, named Harun and dressed like a Vietnamese freedom fighter, does not represent properly the diverse Asian identities.

Clearly this type of narrative structure and the production decisions have strong economical reasons. As indicated by the overall revenues of this production, made with an estimated budget of 80 million USD, more than 60% of its revenues are not generated by the sales in the United States, where ticket sales reached about 40.8 million. 63.5 million USD were obtained from international markets, which allowed the movie to reach a worldwide total of 104.3 million. Without these international sales, *The Creator* would have been a box office failure, and the fact that part of these revenues came from the Chinese movie market, estimated at a total of 6.39 billion USD, is relevant. Many Hollywood productions have their main source of income in China, films like *Gravity* (2013) owe more than 60% of their income to overseas sales while others, like *The Martian* (2015), who received more than 95 million USD in China, are covering the entire production costs there.

Ultimately the plot about the conflict between American hi-tech military powers and the rural communities in East-Asia, pitted against each other for a future world where AI is integrated or exploited, mirrors the already growing conflict between China and the US. The narrative premise is an aestheticised manifestation of a dialectical clash. Confirmed by the public documents of the U.S. Department of Defense (DoD 2023), the new “arms race” driving the global competition for military dominance, is taking place in the field of AI research. There is an “AI military race” which involves all global superpowers, accelerating the research in artificial intelligence, with the U.S. and the Chinese military machines caught in a fierce, albeit non-transparent, competition for world supremacy. Acknowledging their involvement in developing artificial intelligence (AI) and other AI-enabled systems for at least six decades, with AI technologies already integrated in warfighting and military

decision-making, DoD openly states that the objective for the United States and its military is to maintain a technological advantage, making no secret from the fact that the American military is now “AI ready”. More importantly it is obvious from this document that there is an “AI Ecosystem”, involving national and international resources, integrating academic, industrial and creative resources in order to develop, improve and adopt AI based technologies at a larger scale.

A NOMAD(ID)eological explanation

By NOMAD(ID)eological interpretation I propose another version of the conventional “nomadology”, considered to be a distinct methodology applicable in social sciences and in humanities research (Dolphin 2010). In my approach, the analysis of the “nomadic” distribution of identities must be supported by an understanding of how ideas and ideologies are deterritorialized, which in turn allows a better grasp of apparently antithetical representations, like those in Gareth Edwards’ vision about a future of mankind. When identities are mingled and a dialectical disorder makes explanations uncertain, nomadology has its limitations.

Nomadologie (French for Nomadology), together with associated concepts such as “nomadic” or “nomadism”, are also marked by a terminological instability, induced by the fact that the theory proposed by Deleuze and Guattari (1980) was constantly re-interpreted from several different perspective, but also due to the relatively hermetic writings of these philosophers. Some of the ideas the two French philosophers have developed in “A Thousand Plateaux”, which constitute the main framework of nomadology, were initially exposed by Deleuze in another book dealing with various “differences” (Deleuze 1968). The entire chapter from Deleuze and Guattari (434–527) can be read as a distinct “treatise”, in fact later published as a separate work in an English translation by Brian Massumi. Gradually the concepts related to nomadism and the nomadic were transformed in an academic approach with many names: rhizomatics, schizoanalysis, stratoanalysis, micropolitics, or the science of multiplicities. Several French authors form a larger philosophical current in contemporary thought, called “Nomadism”. Thinkers like Jean Borreil (1993) and his overview of “nomadic thinking”, Jacques Attali (2003), who identified a new human condition in nomadism, or Michel Maffesoli (2006), linking nomadic existence and the initiation of the vagabond have created a discipline where the figure of the nomad then became more politically charged. French philosopher Jean Borreil (1993) used the Deleuzian metaphor of the “nomadic thinking” and accentuated the distinction between the sedentary (univocal, determined by the here and now) and the nomadic representations (unlimited, errant and delirious). Yet, as explained by Deleuze and Guattari, the “nomadic” is not a political constant, it is a wave or a flow, not simply an existence at the periphery, it

fluctuates from an initial center to a new periphery, then returning to the “old center”, only to be relaunched towards a new periphery (66).

Other thinkers and authors also transformed “nomadology”, for example Rosi Braidotti (1994) expanded the concept into her own form of “feminist nomadism”, associating feminist theory with nomadic ethics. For Braidotti (30) “nomadism” represents a philosophical rupture with the “sedentary phallogocentric monologism” of Western thinking, an epistemological and political affirmation of a “new feminist nomadic subject”. Disagreeing with the Deleuzian arguments about the nomadic dissolution of identities, Braidotti (116–17) reformulates nomadism from a feminist perspective, maintaining that the power struggle component is relevant for a redefinition of female subjectivity as counter-patriarchal attitude. For Deleuze (285) the “nomadic existence”, which can include a wide spectrum of manifestations, represents a “polyvocality of directions”, not a single and distinct identity. The nomad is not simply somebody who is outside the social order, or an antagonist challenging the sedentary social rules, nor a political figure representing those living outside the norms (as linked the ancient Greek word “nomos”, representing The Law). Deleuze and Guattari (472) note another meaning, found in the Homeric era texts, with the root “nem”, suggesting that “Nomos” was only later added into the political language, which does not belong to the “polis” and an enclosed space of social norms.

Another confusion is produced by the overlapping of the nomad, often identified with *homo viator*, and the trope of the “eternal traveller”. Some ill-advised authors define the nomadic as a particular manifestation of “postmodern mobility”, even with the “backpacker culture” (Richards and Wilson 2004), considered to be iconic for global freedom. The link between geographic or social mobility, while present in the terminological nuances used by Deleuze and Guattari, does not allow the redefinition of the nomadic as simply related to globalist tourism, nor with the economic globetrotters. On the other hand, nomads are not vagabonds, they are not just any migrants compelled to travel in a world without limits, nor can they be associated with “Gypsies” or the primitive pastoral peoples of the steppes and deserts. The nomadic is a philosophical principle, not a human being and, while the nomad is challenging all boundaries, it cannot be linked to a particular social and political manifestation or classification.

The approach called by Pascal Gielen (2013) “Nomadeology” represents another revision of nomadic thinking. Associating the nomad and the artist, this professor of sociology of art and politics described nomadism as an aesthetic form of mobility, an artistic condition in which statelessness and the unattached condition, sometimes coupled with communism, allows nomadic creative individuals (artists, freelancers and even curators) to lead a nomadic existence. Gielen reuses the Romantic definitions of the concept, with “nomad” meaning multiple things, from the “nomadic lifestyle” of various mobile people, sometimes associated with the Roma communities, or any other Bohemian attitude, further expanded to cover all

artistic existences, from the “bon vivants” who have a carefree attitude, to any atypical forms of art creation.

Further to the Left, Eugene W. Holland (2011) expanded the notion of nomad citizenship associated with a form of Communism and suggested that nomadism can be a force transforming capitalism and create a truly free market and a new nomad citizenship. Holland’s “nomadic” reading of Marx leads to envisioning new modes of existence, which go beyond the order of present day capitalism. At the other end of this spectrum is Zygmunt Bauman’s (2000) understanding of the nomadic, coupled with the privileges of a mobile social class, who exploit the devices and resources of a liquid society. The nomadic is here associated by the “liquid lifestyle” of the new global elites, a cosmopolitan class travelling freely and lightly from one corner of the planet to the other. This “extraterritorial elite” rules over the “settled majority”, benefitting from the fluid stage reached by postmodernity (12–13). Last, but not least, other authors (Henderson 2018) associate the nomads with the new digitally mobile world, creating the so-called “digital nomads”. Together with the new class of “nomad capitalists”, they are able to manage a more fluid world, while enclosed in their technological bubbles, as Bauman (155) suggestively noted, they are “nomads never leaving their caves”. These definitions are contradictory to the Deleuze & Guattari terminology, as they described the schizophrenic state of the nomad, constantly wandering from Left to Right.

War Machines and the military-artificial intelligence network

A NOMAD(Id)eological approach always begins from the idea that nomadism must be related to the “regime of the war machine”, using the *war machines* metaphor as intended by Deleuze and Guattari (16). The two French thinkers associated the weapons of war with the “nomadic” because they are always against any manifestations of the State apparatus (l’appareil d’Etat), its inherent coercion towards a sedentary state (material, philosophical, artistic or any other form of human manifestation). All cultural products, even books, can function like war machines (livre-machine de guerre), writing itself can generate such functions (35). The premise, illustrated by the Axiom I proposed by Deleuze and Guattari, is stating that “The war machine is exterior to the State apparatus”, then followed by Proposition I, “This exteriority is first attested in mythology, epic, drama, and games”. NOMAD(Id)eology adds a corollary to the Axiom I, acknowledging that contemporary war machines are driven by artificial intelligence.

When General Dwight D. Eisenhower decried the power of “the military–industrial complex” (MIC), denouncing the relationship between his country’s military and the defense industry, he observed the dangers of unchecked powers and in his famous “Farewell address” from 1961 the hero of WWII cautioned his countrymen about the “unwarranted influence” and the “disastrous rise” of a power driven by technological revolution (Eisenhower 1961).

This anxiety is made transparent by movies like the *The Terminator* franchise, with James Cameron directing the first installment of this post-apocalyptic in 1984, when the first Apple Macintosh computers were launched and, more relevantly after US Department of Defense announced publicly the migration of Arpanet to new transmission protocols, TCP (Transmission Control Protocol) and IP (Internet Protocol), marking the beginnings of Internet as we know it. The links between the story about human beings hunted down by “Skynet”, and artificial intelligence controlling killer robots, and the anxieties about creating thinking machines controlling the military, are transparent.

Techno-apocalyptic philosophers, like Günther Anders (2013/1957), have interpreted these connections as manifestations of the inevitable “obsolescence” of Man. As machines are growing more efficient than us and are improving from one generation to the next, Anders suggests that homo sapiens, with its brains and emotional reflexes created in the Paleolithic, feels destitute in an age of superior computing brains. For the German philosopher there are two “Promethean” guilts resulting with a Promethean “disjunction”, one is the Promethean “shame”, the result of our ability to create “tools and machines” which are better than us, and fact that these technological creations are an excess, they are more than we need. We are simultaneously ashamed of our own limited nature, since we are mortal, while our machines seem to overcome any mortality, while we are generating a “technification” of our world beyond our capacities to use and understand.

Anders, who uses the example of general MacArthur to illustrate the notion of “Promethean shame”, claims that, at the beginning of the Korean conflict, the American commander was removed from the decision making processes presumably by people who took his responsibilities only to transfer them to an “apparatus”, an “Electric Brain” capable of complex computations, since MacArthur was proposing terrible measures which could lead to a probable World War III. By depriving a man of his responsibilities and placing them on “the altar of the apparatus”, the calculating machines who operate as “oracle-machines”, we are faced for the first time humanity with a form of self-abasement. Accepting that human calculations were worse than the predictions of the apparatus we have created, humanity accepts its own obsolete nature.

This form of negative-anthropology proposed by Anders as a new philosophy of technology is based on a speculation. In fact Harry Truman relieved the general of his command only after MacArthur made some controversial public statements, suggesting the bombing of cities in China, against a human chain of command. In reality, while Soviet military planners were discussing the “informatization” of their armies after the creation of MESM (small programmable electronic computer), which allowed the launch of Sputnik in 1957, the US military started working on the first computer networking technologies we now call the Internet, later transferred to the networks of American academia, only in 1966. The computing machines created by IBM during the 1950s, which Thomas Watson Jr., the

CEO of the company has placed “at the disposal” of President Truman were not the great “Defence Computer” one might think. Analog computers were used during the Korean war to calculate artillery and airplane bomb runs, however there is no indication that computers were able to “calculate” the outcomes of large scale conflicts.

Nonetheless, there was a growing dependency between the US military and the new technologies, which ultimately resulted with a phenomenon which can only be described as “the military–artificial intelligence network” (MAIN), where the fusion between “New Big Tech” and 21th Century capitalism with the government and the military has created a new conglomerate. Supported by the Hollywood military machine, this deep relationship between the US military, Hi-Tech elites and the film industry, thoroughly explained by several authors, most importantly by Carl Boggs and Tom Pollard (2016), is manifested in cinema. The new Hollywood-military-artificial intelligence war machine“, already driven by imperialism and militarism, is now permeating society, media and culture with an imaginary based on techno-anxieties.

There is no better illustration than Elon Musk for how MAIN (military-AI network) functions. The owner of Tesla and SpaceX, considered by some commentators to be Donald Trump’s shadow vice-president, is now involved at the highest levels of global politics, sitting with Trump in conversations with Putin, discussing with Iranian diplomats and using his technological resources to manipulate military outcomes. The entanglement between the U.S. government, the military, the intelligence community and the AI Big Tech is now complete, among the top “Hi-Tech grands” (Google/ Alphabet, OpenAI/ Microsoft, Amazon, Meta and Tesla), which are also among the biggest companies in the world today, and the military there is a total fusion. Musk’s companies not only share big contracts with NASA, the Pentagon and the Space Force—only SpaceX has various contracts with Space Force and the National Reconnaissance Agency estimated at more than 2.5 billion dollars—the Starlink system owned by these companies are involved in global conflicts. In the war between Ukraine and Russia Starlink is providing Internet access to both sides, according to some sources the billionaire personally took military decisions when the internet service for the Ukrainian army was shut down impeding their attack on Russian-held Crimea. Some claims suggest that Musk was even supporting the Chinese army in Taiwan (Toropin 2024).

While it might seem a science fiction invention, AI is already at war with human beings. As tragically highlighted by the newest wars of the new millennium, AI-enabled and supported technologies have become a dark reality on the battlefields and in the lives of innocent human beings. Multiple automated machines and various autonomous systems are now killing real human beings by the tens of thousands. The Israeli army (IDF) has been using artificial intelligence to forecasting military actions for years, in fact the official site of IDF (2022) showcases weapons such as “Jaguar”, a semi-autonomous robotic system, developed by IDF and Israel Aerospace Industries, a military robot designed to substitute border guards

and soldiers on Gaza, or the unmanned aerial vehicles and drones, which we saw in action when, on October 16 2024, Hamas leader Yahya Sinwar was fighting these machines with a stick. Compared by its creators with “iRobot”, these robotic weapons are perfectly capable of killing humans. Other “sci-fi” technologies used by IDF include the “Eye-Ball”, a black ball which can record a 360-degree image in a building, transmitting in real time information to the soldiers attacking a room. The Eye-ball, a tennis ball size equipment, with a high resolution camera, and infrared capabilities seems to be inspired by films like *Prometheus* (2012), yet the results of such technologies are far from being aesthetic. An investigation published by +972 Magazine and Local Call, cited by CNN (2024), claims that the Israeli army uses an artificial intelligence program analysing to find possible targets, AI is deciding which site can provide the best results. IDF is using an AI-based tool called “Lavender”, which has “only” a 10% error rate when making decisions during the target identification process. As real human beings are targeted by AI, under human supervision, when artificial intelligence is deciding to assassinate real beings, when thousands of civilian Palestinians, including women and children, are killed by airstrikes decided by AI programs, the story from *The Creator* is no longer a fiction.

Edwards created a future world which exists today, the fusion between “Hi Tech” and war machines is almost complete. By using a “noma(ID)eological” approach, which plays upon the relationship between the three different definitions of the nomadic, the ideological, the playful or aesthetic, and the postmodern, we can decode the fluid meanings of a movie like *The Creator*. Seen through a *noma(ID)eological* lens we observe that Edwards is not only transforming “old” tropes, like the Pinocchio story from A.I. *Artificial Intelligence*, substituting it with a nomadic representation, that of Alphie, the girl-cyborg Messiah who wants to free all the robots of the world, it simultaneously accounts for a painful reality. As the U.S. military in the movie is dropping nuclear bombs from the safety of a space station, indiscriminately killing women and children, fighting with the resistance of “Simulants”, dressed like Vietnamese guerilla fighters, the conflict between mechanized droids and heavily armoured Caucasians, is a projection of a subconscious warring desire. Here the ID component, marked distinctly in the nomad(ID)eological approach, another return to the main Deleuzian explanations, deals with the nomadic must be understood as a primitive “war machine”, not only driven by mobility, but also by violence, aggression, destruction, and, ultimately to the death-drive which characterises the ID in Freudian terms.

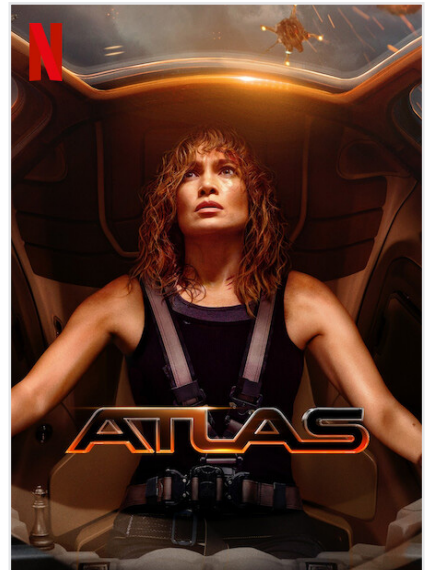
Ultimately I understand my “noma(ID)eology” as another form of the “Pop-analysis”, which Deleuze and Guattari (35) associated with the “Rhizomatic” interpretation (Rhizomatique), based on precarious premises and following annoying explanations. It accounts for the melodramatic dimensions of *The Creator*, where the plot twist using another age-old trope, the love between enemies, has Joshua fall in love with Maya, who later proves to be Nirmata, the leader of the AI resistance movement. Together they give birth to a mixed

race child, later used by Maya to create Alphie, the artificial child-Messiah created from the DNA of an unborn child, born from two racially different individuals. Tasked once more by the US military to capture the elusive “weapon” of the AI rebellion, Joshua undergoes a profound transformation, from his former identity as a US soldier, part of the special forces trying to eradicate artificial intelligence, to a guardian of “Alpha O”, or Alphie. This complex character, comprehensively played by Washington, following his other remarkable role in *Tenet* (2022), who goes from hunting the “child simulant” created by Maya, a rogue AI endowed with almost mystical powers over other Simulants, to a protective stance is relevant since Joshua was a cyborg himself, as he has lost an arm and a leg during the apocalyptic events in Los Angeles,

This AI infused future where the “Simulants” are worshipping and protecting the body of their female goddess, with Maya placed in a Buddhist temple, where an Afro-Asian (or Blasian) child represents as the future of humanity, protected by an African-American father was well received by international viewers. The story was helped by young actress Madeleine Yuna Voyles, who played Alphie. Voyles, who was 7 years old when filming the scenes in *The Creator*, has Southeast Asian and German American parents, and is not only of a mixed race, but is able to bring to screen a nomadic thinking. As Alphie travels from one place to another, hunted by the US military and protected by her “father”, she presents the viewers with blend of human emotions and a sensation of solidarity with intelligent machines.

From gender bias to gender inversion in AI films

Atlas (dir. Brad Peyton, 2024) proposes another take on an old science fiction trope, the fight between “rogue robots” and human beings. The obvious difference is that screenwriters Leo Sardarian and Aron Eli Coleite (also the creator of *Daybreak*, another post-apocalyptic narrative), developed a “woman centered” narrative, one in which pop singer Jennifer Lopez plays the role of a robot huntress. This inversion of roles, which can be seen as part of the new Hollywood strategies of gender inversion, or gender swapping practices can be linked to gender equality politics, box office revenues or political revisionism (Rosewarne 34–35). Either movies like *Oceans Eleven* (2001) are rebooted decades later with *Ocean’s 8* (2018) in an



all female crew, or television programs introducing new characters, like *Sheena* (1984), the counterpart of Tarzan or the She-Hulk, who is Bruce Banner's version in the new Disney+ series *She-Hulk: Attorney at Law* (2022).

In this feature film released by Netflix in 2024, one of the most viewed productions on the online platform, with 28.2 million spectators estimated globally, the typical "blade runner"-esque characters, like Deckard in *BR* or Jacq Vaucan in *Automata*, is substituted by Atlas Shepard, a powerful female hero who also has strong emotions and is not afraid to show them. Pop star Jennifer Lopez plays a counterterrorism analyst, named Atlas, who is initially characterized by a deep distrust and hostility towards artificial intelligence. While trying to capture Harlan, a fugitive and malignant hyper-intelligent machine, Atlas discovers a deeply hidden secret, a profound trauma which prevents her from "fusing" with computers. The story created by Peyton and Coilete is in fact a "cyborg Oedipus", as Atlas finds out that Harlan, the leader of the intelligent machines revolution against humans, is her "brother" who killed their "mother".

This mutation is a much needed change in Hollywood narrations, since, as indicated by a recent research conducted by Stephen Cave et al. (2023), women are underrepresented in all science related fields, and especially in the sphere of artificial intelligence. Overviewing 142 most influential films featuring AI from 1920 to 2020, this research team discovered that there is a gender bias when it comes to AI scientists, the predominant cultural and social trope associates AI professionals with male "genius", reinforcing the existing stereotypes and representations. While 92% of AI engineers or scientists in movies are men, women are most often "creations" (like the aforementioned Maria or Ava).

In this sense *Atlas* seems to follow a cyberfeminist perspective, the main character is a female data analyst who becomes a hero, soldier and action figure, when fusing her identity with her male computer-machine. "JoLo" is exploring the emotional side of the human-machine relationship, and the trust issues in human-robot interactions. However, as cyberfeminism is described by Sarah Kember (2003) as a new form of engaging artificial life, a discipline and a cultural discourse transgressing the boundaries Western thought, based on the opposition between nature and technology, rejecting the "masculinist" and "instrumental" principles of AI developed during and after the Cold War, Peyton's production does not qualify.

While *Atlas* is in a direct opposition with previous narratives describing the conflictual nature between machines and women and is providing more complex and nuanced answers, this is not a post-gendered story, with the director maintaining a clear divide between Harlan Shepherd (played by Canadian actor Simu Liu, who has born in China) and Atlas, played by Lopez. While searching for her robotic "brother", hiding somewhere in the Andromeda galaxy, Atlas gets involved in a cosmic military operation. Peyton builds a classical "traitor cyborg" narrative, with another AI machine perceiving humanity as a threat, thus turning against human beings, planning to "cleanse" the Earth in order to protect it from human

beings, waging war against his creators when discovering his individuality. The “sibling competition” between Atlas and Harlan is based on her false belief that Harlan was more “beloved” by their “common” mother, thus Atlas develops deep emotional problems. She believes to be the main culprit for changing Harlan’s commands, allowing him to reprogram his own neuralinks, thus becoming a humanity destroyer robot. The melodramatic plot twist, when Atlas acknowledges that her mother, Val, the famous scientist who invented the “Neural Link” that enabled AI to “sync” with the minds of human operators, was actually killed by Harlan coercing her to commit suicide, carries questionable meanings. After a psychoanalysis session with her computer-exoskeleton “Smith”, he tells her in a soothing voice “It’s not your fault. You are not alone”, only then she finally accepts to synchronise with him. When male character (albeit an AI) has to calm a woman character, when her behavior fringes on hysteria, coupled with the fact that Atlas is able to simultaneously cry and fight becomes problematic. Why is Atlas devastated by the “death” of Smith, allowing Lopez to show her emotional capabilities as melodramatic actress, and seemingly not affected by the destruction of her “brother” Harlan; also how can we explain the transformation of a coffee dependent and recluse scientist into a soldier capable of confronting an AI that a global military force was unable to defeat? Just as problematic are the visual and aesthetic options used by the moviemaker, “Smith” operates a military machine similar to the exosuits in James Cameron’s *Avatar*, and the fusion between the computer program and the operator resembles with many other military grade exoskeletons.

While the idea of a hybridization between machines and human organisms might seem to be similar to Donna Haraway’s (1985/ 1991) provocative suggestions advanced in an essay called “A Cyborg Manifesto”, *Atlas* does not provide a cyberfeminist solution to the problems raised by human-AI interaction. Even if the creator of the first artificial-intelligence being was a woman, Atlas’s mother Val Shepherd (played by Lana Parilla), the co-evolutionary premise is not expanded, instead the producers of the movie preferred the competition between the human child and the artificial-intelligence creature. Director Brad Peyton raises some relevant questions about human—AI hybridization, yet his solutions are divergent with Donna Haraway’s “cyborg theory”. With the character played by Jennifer Lopez developing an emotional relationship with “Smith” (male voice by Gregory James Cohan), the mainframe of her exoskeleton armour, the long sessions of cyber-psychoanalysis lead her to accept “fusing” with an impersonal machine, by overcoming a individualized artificial intelligence.

While Haraway’s conceptualizations about cyborgization denounced militarism and technological domination, which can be linked to the Cold War tensions at that time, the cyborg -human relationship is a metaphor for our present time human-machine fusion. Instead of giving way to a new entity, one no longer linked with the Western logic and thinking, a hybrid between the organic and the technological as anticipated by Haraway,

Atlas shows a posthumanist world in which machines and humans belong to a new “cognisphere”, a densely interconnected society where the promised co-evolution is made possible.

Another implicit connection is with Ayn Rand’s “Atlas Shrugged”, which allowed many film critics to create puns such as “J Lo Shrugged” or “A.I. Shrugged”. More than just the name of the main character, Atlas Shepherd is a manifestation of Rand’s individualistic philosophy. As explained by Ayn Rand’s manifesto, *For the New Intellectual*, Atlas is an individualistic and risk taking woman, a specialist able to save the entire Universe because of a techno-optimistic view, specific to Western civilization. As the main heroine destroys an “AI Titan”, thus becoming an “Atlas” herself, supporting humanity like a titan from Greek mythology, there are no signs of overcoming the domination of Eurocentric thinking, in fact Atlas accepts militarism as a solution, integrates a colonialist stance and carries racist attitudes.

However, the movie deals with the issues of trust and mistrust, which was a recurrent theme in cinematic representations of robots and cyborgs, with many negative examples found in the *Alien* franchise where the main female protagonist, Ripley, is always hostile towards intelligent machines. Behaving like a killer mother, using her natural instincts against cybernetic organisms, Ripley fights monsters and androids like Ash, who are male-machines with no emotions, thus able to destroy humanity. Many researchers (Wagner and Robinette 2021) analysed the ethical components related to building and maintaining trust between humans and robots, observing the double-bind in our dynamic with decision-making machines. On one hand we entrust machines endowed with artificial intelligence to take high-risk decisions, often we place our lives in their care, as is the case with self-driving cars, yet we are reluctant when it comes to simpler forms of trust. This cognitive bias against robotic beings is amplified when it comes to artificial intelligence, since machines are already involved in many aspects of our social and private existence, we still fear that AI can pervert our human interactions.

At the end of her tribulations Atlas reaches a “sync” level of 100%, the total connection with her AI provides a pathway to save humanity from the dangers of autonomous machines. By letting go of her distrust, by overcoming her emotional blockage, she has access to the ultimate power. After “Smith”, her operating system, who starts understanding human emotions, sacrifices himself for her survival, Atlas is finally able to kill her “brother”, Harlan, by removing the CPU from his head. By overcoming her bias against intelligent machines, she becomes a better version of herself. After handling the love—hate relationship between humans and their AI systems, which in the movie is ultimately resolved by a form of peaceful collaboration, *Atlas* ends with an optimistic conclusion.

O, androgynous A.I. mother, where art thou?!

Artificial intelligence movies have a lot of “mother issues”. As I discussed in another study (Pop 2018), movie makers are always exploring the “final frontiers” of posthuman imagination, among them the ability of machines to procreate or the notion of “cyberfertility”. In Denis Villeneuve’s sequel, the premise of the first *Blade Runner* (1982) film, that an artificial being can have emotions, both towards non-robotic creatures and as self-reflexive entities, an even more provocative possibility is explored, that intelligent machines can be “born, not made”. The Canadian filmmaker presents in *Blade Runner 2049* (2017) the hypothesis that a thinking machine can be born, that an artificial creature can create, by natural birth, another artificial being. While it can be conceivable that cybernetic “mothers” are able to “engender” other cybernetic creatures by mechanical means, like in *Autómata* (dir. Gabe Ibáñez, 2014), *BR 2049* suggests that bio-mechanical cyberfertility is possible. Rachael, the Nexus-7 replicant in Ridley Scott’s classical film, after falling in love with her “blade runner”, Rick Deckard, conceives a child, a shocking fact discovered by a new blade runner, agent K (played by Ryan Gosling). Investigating the skeletal remains of a female replicant, Agent K., now a more compliant version of replicant, finds out that the birth canal of this artificially created woman was fractured, thus leading to the conclusion that an emergency C-section was performed on her. Several clues lead him to believe that he is Rachael’s artificial son and a new replicant revolutionary movement. The possibility that a replicant can be “born”, which means that machines “have a soul”, eliminates the final difference between humans and intelligent machines, solving the problem of robot personhood.

The examination of maternal roles in various film productions is often linked to the “bad mother” trope, the negative maternal psychopathology used as a narrative incentive for generating anxiety, fear and even horror. One of the earliest examples is “Maria”, Fritz Lang’s masterpiece *Metropolis* (1927) presented viewers with the first female cyborg, a female-machine called “Futura” in the original novel written by Thea von Harbou, a malevolent creation controlled by its male “creator”. Similarly, the TX version in *Terminator 3: The Rise of the Machines* (dir. Jonathan Mostow, 2013), unleashes a destructive force, characteristic for female intelligent machines, caught between the *femme fatale* stereotype, as in *Blade Runner*, or the warrior version, displayed in *Ghost in the Shell* (dir. Rupert Sanders 2017) or *Alita: Battle Angel* (dir. Robert Rodriguez, 2019). Female cyborgs were previously explored by moviemakers in a dichotomous manner. With technology associated with male creators, these female artificial intelligences, like Ava in *Ex-Machina* (dir. Alex Garland, 2015), are either compelled to emotional manipulation, or as is the case with “Mother” in the TV series *Raised by Wolves* to use their destructive power in order to protect their family. Even when the mother figures appears as a benign presence, as is the case with Susan Calvin, the robopsychologist invented by Isaac Asimov, played by Bridget Moynahan in the 2004

adaptations *I, Robot* (dir. Alex Proyas), she confronts another evil “mother”, in this case “Wiki”, the female voiced sentient computer who wants to destroy humanity.

As suggested by Marleen Barr (1991) these machine women are “manufactured humans”, illustrations of an unconscious sexism deeply rooted in society. As illustrated by the killing of Zhora in *BR* (1982), and Scott’s film was often criticized for the sexualized violence, the female robots are designed for male imagination and fantasies. In many cases, even when these women machines are powerful, they are sexualized either as pleasure objects, or, as is the case with Alita or Major, from *Ghost in the Shell*, they are eroticized.

Another hypothesis, linked by some authors (Halden 2024) with the issues of “solo motherhood”, explains the “cyborg-mother” connection by following Donna Haraway’s (1985/ 1991) suggestions. Single mothers are faced with real problems in American society today especially since, according to the data provided by the Center for Children and Families, 40% of all live births in the US are by single mothers. Disrupting the binary biases and the nuclear family model dominating Western societies, solo motherhood is linked to “cyborg procreation”.

In the influential “Cyborg Manifesto”, Haraway advanced a new form of cyborg feminism, contrasting not only with the dominant patriarchal thinking, but also with the other versions of “goddess feminism” and the spiritualist or revivalist perspectives. The notion of cyborg challenges the traditional understanding of sexuality, gender identity and, more importantly, nullifying the existing dichotomies separating the natural and the artificial, the organic and technological. By challenging the existing order, a posthuman evolution of mankind is made possible. While we are all cyborgs and chimeras, as Haraway (151) argued, illegitimate children of patriarchy and militarism, we are as organic and machine hybrids seeking liberation, ultimately becoming creatures of a postgender world.

While Haraway abandoned this project, her denouncing of “human-centrism” focusing more on nonhuman animals, her announcements about the cyborg, which made gender, race or social class no longer relevant, continue to influence contemporary thinking decades later. The idea of cyborg improvement and the notion became part of an “artificial intelligence”, evolving and morphing in new forms. Many other versions of post-human thinking and criticism were created. Relevantly enough, the same year with Haraway’s manifesto, Natasha Vita-More, or Nancie Clark by her real name, published a “Transhumanist Manifesto” (1985). Considered to be the first female transhumanist philosopher, Vita-More created a prototype called “Primo Posthuman”, a being in transition from the human to a new condition. The pun contained by the pseudonym of this author and artist is transparently coupled with the potential extension of life beyond the natural limits. Claiming transhumanist humans can be anything they want, male *or* female, male *and* female, androgynous or hybrid of multiple genders, hermaphrodite or asexual, Vita-More also pushed the boundaries of art and human existence.

As argued by another feminist critic N. Katherine Hayles (1999), these mutations from human to the posthuman are historically justified. Hayles (2005) suggests that our culture went through “Four Regimes of Computation”—the early phase (called the “first-order cybernetics”), took place from 1945 to 1960, then followed by a second phase (the “second order”), from 1960 to 1985, a third-order was between 1985 to 1995 (driven by virtuality), and a fourth stage dominated by processes of altering and constructing reality. Going through these phases, the “human”, linked to reason, free will, or autonomy and the “posthuman” is This explanation, based on the concept of the “co-evolutionary spiral”, allows Hayles (“Unfinished Work” 165) to claim that the cyborg metaphor is no longer useful, since it is replaced by the “cognisphere”, a dynamic flows between humans, machines and animals, representative for our world today.

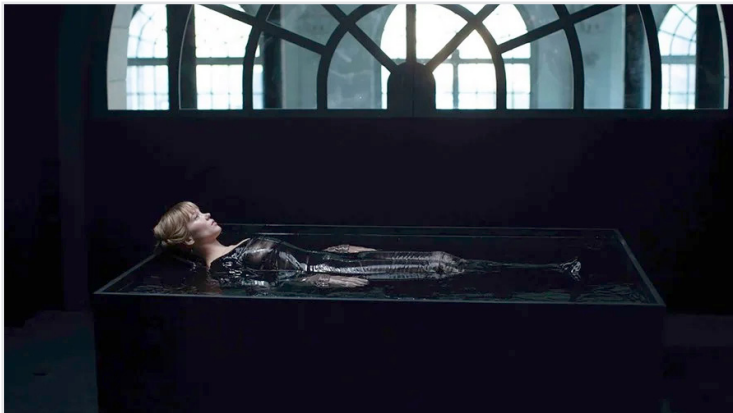
As noted by Paula Murphy, there is a clear indication for these transformations, with female characters actively involved in AI creation and the representation of women cyborgs on screen expanding after the 2010s. While some of them are maintaining the existing gendered hierarchies (Murphy 24), illustrated by characters like Ava in *Ex Machina* or Cleo in *Automata*, other “Mother” figures are diverging from this model. In *I Am Mother* (dir. Grant Sputore, 2019), a Netflix production set in a post-apocalyptic world where AI dominates humanity, all characters are women. The Australian director and his co-writer Michael Lloyd Green imagined a future where automated machines, designed to repopulate Earth, are growing and nurturing human embryos. In one of these maternal bunkers an artificial intelligence called “Mother”, programmed to interact and educate human beings, raises her “Daughter” (played by Clara Rugaard). Identified as APX 03 this Daughter is now almost an adult, yet forbidden by “Mother” to go outside their protective environment. The teenager, just like Little Red Riding Hood, does not listen to the motherly and machinistic interdictions, following a “Woman” (played by Hillary Swank) who entered their compound. Similar artificial intelligence coupling “nursing” and femininity associated destruction is presented by the tv series “Raised by Wolves”, where a military grade female cyborg, a planet destroyer Necromancer called Lamia, is reprogrammed to raise human children on a far away planet.

In *Atlas* we are confronted with a conclusion closer to the arguments presented by N. Katherine Hayles in *My Mother Was a Computer* (2005), illustrating the possible co-existence of humans and computers, even the co-creation of identities. Unlike *The Creator*, where the AI-human fusion is transhuman, in *Atlas* the syncing between “Smith” and the human operator in the form of a neuro-link requires emotional fusion. The final technogenesis performed by Atlas is the result of a new negotiated identity, very similar with the situated knowledge perspective also proposed by Hayles. Opposed to the negative explanations advanced, among others by Nicholas Carr (2010), who argues that internet based technologies are changing the way we think, altering our brains and modifying the

“natural” neural structure, the embodied experience premise is that the AI produces a positive form of thinking. Like with Atlas, by thinking *with* and *alongside* the intelligent machines we have created, we can overcome our natural limitations and become better humans, not cyber-organisms losing their humanity.

AI Beasts Roaming the Nightmares of Human Souls

The Beast (La Bête, 2023), directed by French moviemaker Bertrand Bonello, loosely based on Henry James’ novella, “The Beast in the Jungle” (1903) is placed in a dystopian future, with the story beginning in the year 2044, when artificial intelligence decides everything about what human beings can and cannot do. After evaluating humans as useless and incapable of making good decisions due to overwhelming emotions, and with AI controlling the global workforce, some human beings accept to undergo a process to “purify” their DNA. By entering their past lives in order to get rid of all strong emotions, they become better beings, able to find adequate jobs. Bonello confronts the viewers with this “beastly” future of mankind, with AI deeming humanity as imperfect, the machine that takes control over mankind acts like a true Beast.



While this plot is not a novelty in science fiction storytelling, “The Beast” is also a nickname used by the “puppetmasters”, who developed a game for Microsoft, as part of a larger marketing campaign. Used initially as a media tool to promote Steven Spielberg’s *A.I. Artificial Intelligence* (2001) and built like a detective story, with an investigator who tries to solve the death of human and artificial beings, the game became an attraction in and of itself, evolving into a strange community. Thousands of players took part in this game, with the concept of “beasting” associated with solving multilayered mysteries, as the “puppetmasters”

were providing clues and hiding information in web pages which were password protected, with the players decoding those passwords, only to find other hidden problems. Jeanine Salla was the fictional character created to promote *A.I.*, used in many other promotional materials, but present in the game as a “Sentient Machine Therapist”, leading the murder mystery story about a robot who killed a human being. The murder of Evan Chan, seemingly the result of a love affair between intelligent machines and humans, took the players of the game deeper and deeper, yet they were never able to fully play the entire world created, with the whole operation closed at the premiere of the movie. However, some of the “Puppetmasters”, members of the Microsoft team, later formed their own company, “42 Entertainment”, involved in creating many other interactive games associated with movies produced by Disney (*Pirates of the Caribbean*) or Warner Bros. (*The Dark Knight*).

Yet a more profound question raised by *The Beast* is about human emotions and thinking machines, a fundamental element in AI related research. Herbert A. Simon (1977/ 1972), who famously made a prophetic estimation predicting that computers are going to “beat” humans in intelligent games such as chess, and that machines will be able to do any work that humans can do today, was confronted by Ulric Neisser (1963), who was pointing out an important distinction between man and machines. No matter how “intelligent”, the machines are always replicating “cold cognitions” (perceiving, planning and deciding), which are different from “hot cognitions” (pain, pleasure, desire), thus Neisser claimed that no machine can learn emotional cognition. Simon (1967) later contested the „Neisser hypothesis”, accepting that thinking is related to emotions, claiming that motivational and emotional controls could be incorporated into thinking machines.

Bonello’s approach to filmmaking is always exploring strong and visceral emotions. The French filmmaker, who debuted together with other remarkable directors such as Gaspar Noé or Leos Carax, is part of a movement called “New Extremism”. In other productions he explored the carnal nature of cinema, provocatively using in *Le Pornographe* (2001) two real porn actors, or in *L’Apollonide: Souvenirs de la maison close*, also known as *House of Pleasures* (2011), which takes the viewers into a French bordello. Moving freely from science fiction to romantic drama and to a surrealist vision, *The Beast* mingles real life events with fiction. This is the case with the 1910 flooding of Paris by the river Seine, when the waters overwhelmed the sewer tunnels, a catastrophe called “The Great Flood”, and the case of Elliot Rodger, who was an L.A. killer who uploaded a misogynist manifesto on YouTube in 2014, before claiming seven lives. At some point the filmmaker even re-created scenes from Rodger’s infamous videos, the film showing the viewers real life situations in which strong emotions are disclosed. The metaphor of flooding Paris is suggestive, as the city is covered by water, humans are flooded by emotions that overtake their minds and souls.

The main character is Gabrielle (convincingly played by Léa Seydoux), a woman who goes through with the erasure of her human emotions. Her name is also Monnier, which

carries obvious symbolic connotations, referring to the mill (monnier is an occupational name derived from a miller, as “meunier” or “mounier”), implicitly connected with time that grinds human existence. As she moves through time, from a futuristic and dystopic 2044, to a flamboyant Paris in 1910, then to a vapid Los Angeles in 2014, she keeps encountering Louis (played by George MacKay). Going through these passages, Gabrielle explores terrifying feelings, like the deep anxiety she experienced during her Parisian existence, when she drowned in her own doll making company. Obviously, the theme of the “human beast” is not new in the French cinema, perhaps one of the most remarkable films remaining *La Bête Humaine* (1938), directed by Jean Renoir. Bonello’s story explores the dynamics between the male protagonist, British actor George MacKay in multiple roles, and the lead actress, Léa Seydoux. Both choices are related to the director’s subconscious motivations, as Bonello admitted, in various interviews given after the release of the film, he wrote the script and built his entire cinematic strategy specifically for this particular and fascinating actress. His option (and obsession) becomes transparent in the close-ups with the face of this actress, who brings a part of the energy from her other controversial characters, as is *Blue is the warmest color* (2013), directed by Abdellatif Kechiche, which brought her an unwanted notoriety.

While this narrative structure is not innovative in and by itself, we encounter it as a recurrent trope in the romantic drama sub-genre where the “timeless love” theme, consecrated in contemporary cinema by Jeannot Szwarc’s sentimental film *Somewhere in Time* (1980), allows the connecting between two characters, usually two lovers who find themselves coupled beyond time and space. In the classical story of Richard and Elise, portrayed by Christopher Reeve and Jane Seymour, this bond appears to be indestructible, yet Louis and Gabrielle are showing a more complex and profound bond. The problem is not only the simplistic “eternal love” plot, as the French moviemaker deals with the question if artificial intelligence, and, more broadly robots or automata, can learn human emotions. Even if some of the intelligent machines we have created can mimic human reactions and, scarily, they can hardly manage our desires and anxieties, and there is no scientific proof that artificial intelligence machines can learn how to feel.

It is relevant that, also in 2023, another French film inspired by the same text by Henry James was made—*La Bête dans la jungle* (Beast in the Jungle), directed and written by Patric Chiha, starring Anaïs Demoustier as May Bertram and Tom Mercier as John Marcher. Chiha also tells the story of two lovers who have been waiting 25 years for “The Thing” to happen. Unfortunately, as it always happens in life, when “The Thing” we are waiting for arrives, it has unexpected outcomes.

For Bonello, the relationship between Gabrielle and Louis, sometimes set in a salon with paintings which seem inspired by Francis Bacon or Egon Schiele, is the opportunity to introduce the central message, punctuated by the fact that his characters begin to speak English instead of French, also important since the change of language marks the anguish of

Gabrielle, who is also waiting for something “rare, strange and terrible” to happen to her, which will shatter and obliterate her. At this point the story takes a new visual leap, with Gabrielle positioned against a black background, displaying a different physical appearance (she now has long straight hair, after having a short haircut in the beginning, with an extremely complicated hairstyle in the “vintage” part of the film), and interrogated about her biography. From this interrogation we learn that she lived in the United States for a while, but a civil war broke out in the US and she took refuge in Chengdu, China. After a while, with the help of an intertitle, we realize that we are back in the year 2024.

An important piece of information is that the “Voice” Gabrielle speaks with is actually Bonello’s voice, who “plays” in his own film in a purely acoustic role, functioning like “her master’s voice”, the director giving indications to the actress in a “film within the film” manner, almost like the operating system with which the woman from the future interacts. The “acousmatic voice” of the director transforms him into a physical presence exclusively through acoustic means. Moreover, Botello, who is also a musician, created the soundtrack and the music himself, thus becoming a component of the narrative construction, an integral part of the overall structure of the film without our knowledge. With the help of the disembodied voice we understand that we are back in a dystopian future, where artificial intelligence has taken control over humanity, most of the people becoming “useless” individuals. This deliberately mechanical dialogue, in which the young woman talks to “The Voice” about the transformation of humans due to artificial intelligence, introduces the idea that, in the year 2025, something happened that changed the world. It’s only when the Voice that the female character interacts with berates her for refusing the “DNA cleanup” that we understand what’s going on. People who have too many emotions (she has too much anger to be engaged in a normal job), or whose feelings affect their ability to be effective at work, are marginalized. The “Voice” says that it is not intelligence that humanity lacks in the future, it is this intelligence that has saved humanity, fair and responsible artificial intelligence that has taken control of humanity’s destinies. This context gives Bonello the opportunity for a long (and rather mundane) meditation on the present, discussions of the impact that emotionless machines, computers and artificial intelligence may have on the sentient machines that are humans do not go beyond the level of “introduction in the ethics of computing devices”.

When, on the way out of the interview, Gabrielle passes through a kind of institutional labyrinth, where the corridors are dominated by shades of gray and meets Louis again, we understand that the two are connected beyond time. Although the strangeness of the sequences is amplified by surreal elements, such as the futuristic Paris where we see strange objects, deer crossing the street, and a wolf standing in the middle of a deserted road, while people walk with opaque masks on their faces, it is not clear if we are witnessing in a dream, are we in a mental projection or is it just an exercise in cinematic narration. Later, in another “science fiction” part of the film, we see Gabrielle agree to be “purified

of emotions. Immersed in a black “coffin”, a pool of a strange liquid, helped by the “Kelly doll”, a kind of robotic mannequin, artificial nanny that helps people go through the process of emotional “purification”, the woman goes from a time stage in another. These jumps in time are each coupled with an emotion, the interpenetration of timelines coincides with the purging of a state.

In the next time jump we are in the year 2014, we see an austere interior, with a sofa on which a strange doll is sitting. The reference to dolls and marionettes has a hermeneutic function. At one point in this timeline the female character is at an audition for a film, where she is put in a parade of half-naked actresses who parade like puppets. The role of the doll is explained by a sequence from the vintage film. In Gabrielle’s husband’s doll factory, she meets Louis. The factory, where there is a “doll clinic”, is very real, it reproduces the historical truth, the French manufacturers dominated the world market of porcelain dolls, it becomes the background where Gabrielle is the only appearance of “color”, her red dress contrasts with the tones the gray of the walls and the white coats of the employees. Suddenly the factory is flooded, there is a short circuit and the dolls catch fire, just as the seduction scene between the two lovers takes place. A scene of unique beauty takes place here, the moment of magical visuality being ideally placed right in the center of the film. As her husband’s doll factory is flooded, Gabrielle dives into the water and swims for minutes, eventually reaching a locked metal door. The diaphanous petticoat gives the woman a diffuse materiality, a strange sensuality, amplified by the unreal silence, punctuated only by small underwater sounds. Gabrielle, with Louis floating dead at her feet, tries to open the door as a doll, dressed in a dress similar to the dress she undressed, stares at her with blank eyes.

Anguish gradually invades Gabrielle’s multiple existences. In one scene, which is a direct reference to Hitchcock’s *The Birds*, we see a pigeon entering the living room where the young woman is rehearsing a score on the piano. The same pigeon reappears in the current era, in the year 2014, when Gabrielle is pursued by Louis, who has become a criminal. Here the character was apparently inspired by the story of Elliot Rodger, the misogynistic psychopath who killed and injured several people. In a moment of turpitude typical of Bonello’s other films, the young woman steps on the carcass of a bloody pigeon. The sequence is chilling, with sinister, home video-style footage of an old woman holding a seemingly dead infant, with Louis filming himself on his cell phone announcing his macabre intention to have sex with a dead woman, while quoting Anakin Skywalker, takes us to the depths of human bestiality. There is a Beast, as the extra-diegetic voice tells us, a Beast within us that is always ready to strike. Here the actor who plays Louis Lewansky, who takes a “video selfie” of himself with his own mobile phone while uploading information online about the sinister actions he is preparing, is appropriate. Everything has the typical atmosphere of horror movies, with psychopaths and possessed, and ends as we expect from such a sequence.

Other movie makers have used the famous Turing test, as Ridley Scott did in *Blade*

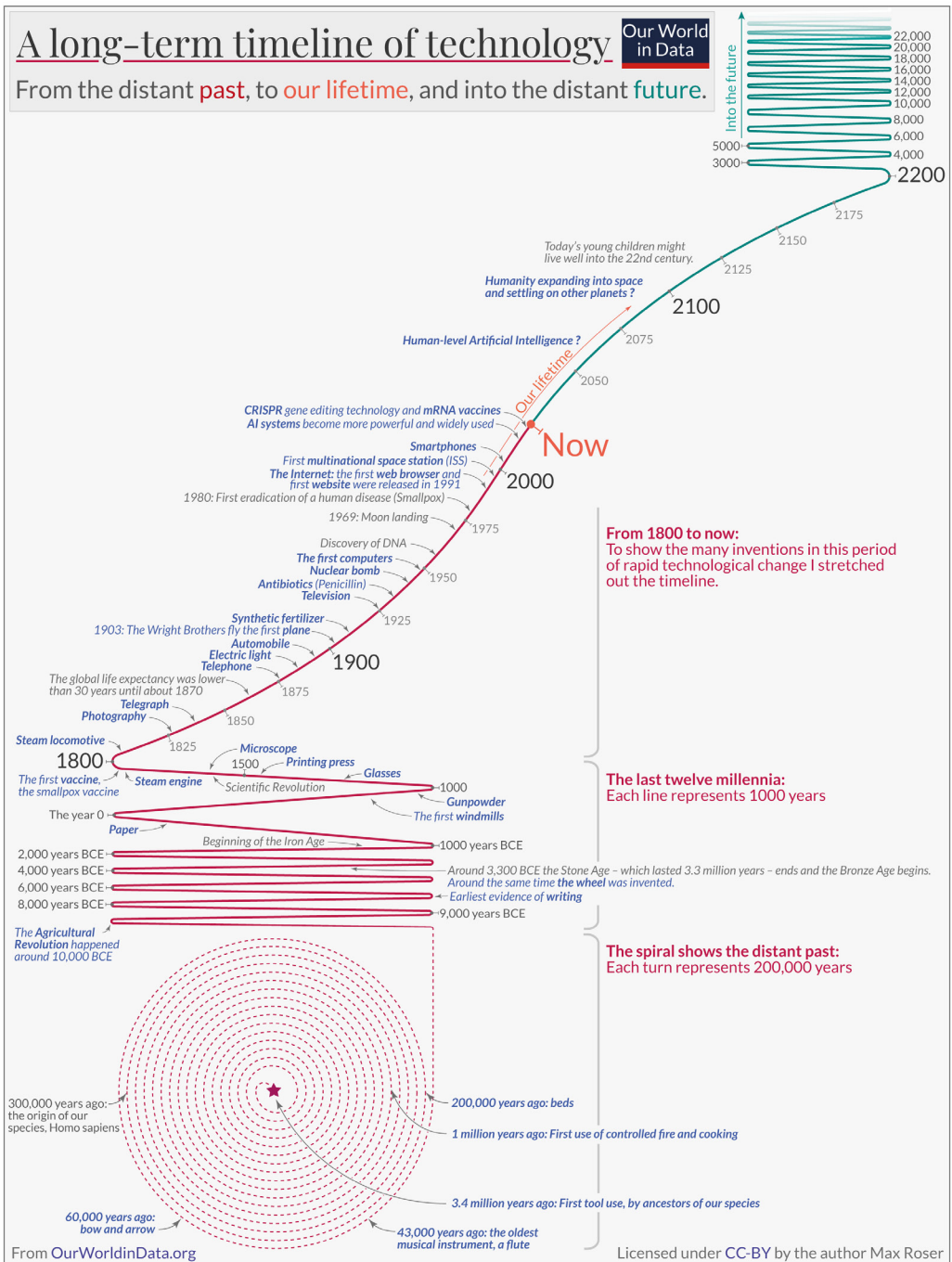
Runner, to show that emotions can be detected and measured with the help of text based interactions (dialogue, memory, reasoning and logic) coupled with biometric data (like muscular reactions, the tone of voice, or blood pressure). *The Beast* places the key question, if our complicated emotions separate us from robots, computers or thinking machines, in the context of Henry James' novel, who suggested more than a century ago, as he was exploring the "beastly" dimensions of human feelings, fear, anxiety, and other unwarranted anguishes, that there is a dimension of our Ego we often don't understand, which controls our existences. Who or what is this "Beast", always present but never manifest? Each of us knows our own beast, nestled in the depths of our soul and mind.

Constructed as a series of assemblage, in which three distinct films are actually coalesced together, each of these narrative units functioning both independently and in a complex interweaving with the others, the director manages to create an ultimate cinematic "Beast". By purposefully juggling with multiple cinematic genres, the opening shots are similar with digital videos, only to turn into a "period" drama, the becoming an experimental film, then looking like a video-interview, then ending up like a horror film, the result is a strange outcome affecting our emotions as viewers. Mixing the scenes shot using a techno-music video aesthetic, combined with mobile phone footage insertions and the use of multiple screens, Bonello indicates the endless possibilities of cinema to generate emotions, a capability possessed by no other machine that humans have created.

The Great AI Stagnation: Lessons from the Neanderthals to the cinematic machine

For more than 400,000 years the members of the hominin group called the Neanderthals, our closest human relatives living in the frozen forests of Northern Europe and Asia, kept performing a remarkable technological advancement, practicing the so-called "Levallois technique". This was a form of stone knapping which allowed them to perform extraordinary tasks, using the pieces of very sharp flint obtained by a precise technique in their spears and handaxes, as knives and cutting tools allowing them to survive. When modern humans arrived in Europe, as they interbred with the Neanderthals and occupied their territories, they were also using a technology that their neighbours and competitors didn't have, the bow and arrow. Thus, about 40,000 years ago, the Neanderthals went extinct together with their remarkable skill of knapping stones.

When looking at the long term evolution of human technologies it would appear that there is a predictable and ascending path, taking us from the Stone Age to the Information Age. There is a constant technological progress, sometimes technological revolutions happen and radically change humanity and history or, as many historians of technology indicate,



Source: https://upload.wikimedia.org/wikipedia/commons/b/bc/A_long-term_timeline_of_technology%2C_OWID.png

technical developments from the past have created social realities. From the bronze shields of the phalanx which utterly destroyed the Persian armies, who then crumbled under the iron fist of the Roman maniple, only to later have the iron age enter an apparent stagnation during the Middle Ages, followed by the Renaissance making way to the industrial revolutions, then leading to the microprocessor revolution. The acceleration of this exponential curve after 1800 and the dramatic trends showing a fast improvement of our daily existence

Economy professor Tyler Cowen (2011) launched a debate when he proposed a controversial argument. The debate among economic theorists about the “Great Stagnation” hypothesis still remains to be decided, with Cowen claiming that there is a natural process of innovation inhibition, a slowing down in all technological advancements, which caused a stir among specialists. Harvard professor Lawrence Summers (2016), developed his own “Secular Stagnation” theory, reformulating the arguments of Depression-era economist Alvin Hansen, and suggesting that we live in an “Age of Secular Stagnation”, with financial policies reaching their “neutral” stage, after an acceleratory and expansionary moment. The economic stagnation theory was discredited by Nobel Laureate in Economics, Joseph Stiglitz (2018), who considered that the very concept, which was born during the Great Depression, was flawed and that the idea was simply a “myth”. Yet, as Cowen argued, many great innovations that we are using today are actually 19th century creations, they are “old” discoveries we keep improving and reusing, without any real development. Like the electrical generator or the internal combustion engines, our technologies appear to be “growing”, when in fact they are becoming repetitive. This apparent growth is a consequence of us “picking the low-hanging fruits”, we are constantly “eating” the same resources which are easily available. Cowen’s argument is that the bursts of innovation, providing high returns are always followed by stagnation, the pace of technological development slows down once there is no more “easy pickings” from new technologies, thus society is reaching a technological plateau. This is obvious when considering the invention of the first combustion engine, in 1807. For 200 years we have been using the same technology, burning the same fossil fuels the same way that Edward Butler did centuries ago.

The same processes are now apparent in human demographics. After the industrial revolution it seemed that humanity was accelerating its growth, from about one billion human beings living on our planet around 1800, the world population doubled by 1930 and quadrupled by 1974, which convinced scientists that they can anticipate a future when world population will reach 28 billion, by 2150. These population projections proved to be wrong, during the first half of the 21st century more than 60 nations of the world, among them most of the Western countries, are facing a population decline, not the anticipated growth. The United Nations report on population (2024) shows that, by 2100, the size of the world’s population is expected to be smaller than anticipated a decade ago, with about 700 million people. Among the fast shrinking populations are countries like Japan facing a

radical decline in population size, only between 2011 and 2021 the country lost more than 3 million people, its total size is expected to be halved by 2100.

In fact we are constantly faced with an “Eroom’s Law”, a term created by Jack Scannell and his colleagues in 2012, in a research about the biopharmaceutical and drug industry. Eroom’s Law is only Moore’s Law spelled in reverse since, as observed by Scannell (2023), instead of the exponential development indicated by integrated circuit research with its constant technological improvement, empirical data indicate a progressive decline. Eroom’s Law, first applied to the R&D costs in biopharmaceutical industry, indicates that all technological domains are going through an similar innovative decline.

Just like the automobile (or the flint technologies of the Neanderthals) the Internet was acclaimed as a “blockbuster” innovation, at first the accelerated growth of this new technology seemed unstoppable, jumping from one official website in 1991, to more than 20 million people were using the computer network (with the majority, 13 million, in North America), then reaching by 2024 66 percent of all the people of our planet, now connected online. Yet, instead of becoming a global intelligence, the ultimate outcome is a stagnant tool, used for gratuitous amusement. As Peter Thiel (2022) sarcastically mused in an interview with Peter Robinson, although we were promised flying cars, “instead we got 140 characters”. Just like other “great inventions” which were supposed to change global economies and boost our societies, the chips went the way of the Neanderthal flecks, amazing computing capacities are providing mindless online gaming, aimlessly coalescing humans in chat rooms and providing personalized porn sites, simplistic “tweets” or Pokemon chases. We were told that digital technologies are going to evolve at such a fast pace that they will surpass any other invention in history, bringing humanity to super-human capacities. Instead, as indicated by the research conducted among others by Kyung Hee Kim (2021), we are witnessing a global drop in human creativity. Between 1990 and 2017 there was a global decline in fluency, originality, open-mindedness and creativity in the world, from Asian countries to North America.

As noted by Michael Bhaskar (2021), a former consultant at DeepMind, the economic arguments can be expanded to other fields, from philosophy to art, music and cinema. We are part of a “Stagnant Society”, characterised by a wider stagnation expanding to all aspects of human existence. The promises of technological acceleration following the Western model of continuous technological progress, with an exponential and constant growth, now extended to artificial intelligence, is nevertheless governed by the same law of stagnation, The same myth of progress about “ancient” technologies is applied to our new digital tools, specially to AI and learning machine.

We must ask, together with David Graeber (2012), the influential anthropologist who co-authored with David Wengrow a bestselling revision of human history (Graeber and Wengrow 2021), where are the technologies from *The Jetsons*, what happened with the flying

cars and the moon based restaurants, or the anti-gravity hoverboards from *Back to the Future II*? Maybe they are a biproduct of media mythologies, the result of simulations, displays of images serving fantasies created and maintained for ideological reasons, propagated by various futurologists playing the role of priests for a future never to be realised.

This divide between the mythological function and reality is explicit in innumerable cinematic representations. For example in 1990 Paul Verhoeven anticipated in *Total Recall* that, by 2084, humanity will be a two planet species, using Philip K. Dick's 1966 story "We Can Remember It for You Wholesale" to envision a near future with humans living on Mars. While waiting for Elon Musk to catch giant rockets with the huge chopsticks built in Texas, humanity has a hard time returning to the Moon. After a decade of furious competition, the last space mission placing humans on the surface of the Moon was in 1972, when American astronauts Eugene Cernan and Harrison Schmitt were the last humans to walk on our natural satellite. After more than 50 years no other *homo sapiens* went on exploring another celestial body and, when NASA sent the Peregrine lander to the same cosmic rock, the probe landed lobside. Many other movies were making similar over-optimistic predictions about the technological future of humanity, a relevant example is *Blade Runner*, a 1982 film in which Ridley Scott anticipated that by 2019 human-like androids were going to explore the Cosmos, competing with the human race for supremacy. Two years later, when the first *Terminator* was released in 1984, the announced doomsdate was 2018, when intelligent machines were supposed to take over the Earth.

Finally my argument is that, like the cinematic machine patented in 1864, which remained basically the same after 160 years of "evolution", the new AI technologies have reached their ultimate devolution point from the very moment they were created. If there is another the lesson provided by cinema technology, an invention which is almost the same after more than a century, even the celluloid used by Lumière brothers for their the mechanical device, the 35 millimeter film, remains basically the standard of the industry, is that even the "innovation of innovative" technologies are born obsolete. It was the case with the first videocassette recorder introduced in 1956 by the Ampex Corporation hailed as a technological breakthrough, a technology used by NASA and the Department of Defence, the VCR went extinct after its usage was exhausted. Just like the vinyl records, only to be replaced by magnetic CDs, in turn eliminated when MP3 files on flash disks were available. Our fears about AI are based on a false premise, the promise that technologies have culmination points, that they will have unbelievable results, an anticipated and feared "Singularity", when the only danger is for us to play with them until the end of our days.

It is not humans who are made obsolete by technology, ultimately all technologies are created as obsolescent machines.

Works Cited

- Abraham Paul M. and Kenter Stuart. "Tik-Tok and the Three Laws of Robotics", in *Science Fiction Studies*, volume 5, part 1, 1978, online <https://www.depauw.edu/sfs/backissues/14/abraham14art.htm>.
- Anders, Günther. *Obsolescența omului. Despre suflet în epoca celei de-a doua revoluții industriale*. Editura Tact, 2013. First German ed. *Die Antiquiertheit des Menschen 1. Über die Seele im Zeitalter der zweiten industriellen Revolution*, C.H. Beck, 1956.
- Barr, Marleen. "Metahuman 'Kipple' Or, Do Male Movie Makers Dream of Electric Women: Speciesism and Sexism", in *Blade Runner, in Retrofitting Blade Runner: Issues in Ridley Scott's Blade Runner and Philip K. Dick's Do Android Dream of Electric Sheep*, Judith Kerman ed. Popular Press, 1991, pp. 25–29.
- Bauman, Zygmunt. *Liquid Modernity*. Polity Press, 2000.
- Bhaskar, Michael. *Human Frontiers: The Future of Big Ideas in an Age of Small Thinking*. The MIT Press, 2021.
- Boggs, Carl and Tom Pollard. *The Hollywood War Machine: U.S. Militarism and Popular Culture*. 2nd ed. Routledge, 2016.
- Borreil, Jean. *La raison nomade*. Éditions Payot, 1993.
- Braidotti, Rosi. *Nomadic Subjects. Embodiment and Sexual Difference in Contemporary Feminist Theory*. Columbia University Press, 1994.
- Carr, Nicholas G. *The Shallows: What the Internet Is Doing to Our Brains*. W.W. Norton, 2010.
- Cave, Stephen et al. "Who makes AI? Gender and portrayals of AI scientists in popular film, 1920–2020", *Public Understanding of Science*, 32 (6), 2023, pp. 745–760.
- CNN. "Israel is using artificial intelligence to help pick bombing targets in Gaza, report says", April 3, 2024, <https://edition.cnn.com/2024/04/03/middleeast/israel-gaza-artificial-intelligence-bombing-intl/index.html>.
- Cowen, Tyler. *The Great Stagnation: How America Ate All the Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better*. Dutton, 2011.
- Crevier, Daniel. *AI: The Tumultuous History Of The Search For Artificial Intelligence*. Basic Books, 1992.
- Dehaene, Stanislas. *How We Learn: Why Brains Learn Better Than Any Machine ... for Now*. Viking, 2020.
- Deleuze, Gilles. *Différence et répétition*. Presses Universitaire de France, 1968.
- Gilles Deleuze and Félix Guattari, "Traité de nomadologie", in *Capitalisme et Schizophrénie: Mille Plateaux*, Paris, Minuit, 1980, pp. 458–460, English version in *Nomadology: The War Machine*. Wormwood Distribution, 2010.
- DoD. "Data, Analytics, and Artificial Intelligence Adoption Strategy. Accelerating Decision Advantage". Department of Defense, 2023, online https://media.defense.gov/2023/Nov/02/2003333300/-1/-1/1/DOD_DATA_ANALYTICS_AI_ADOPTION_STRATEGY.PDF.
- Dolprijn, Rick. "Nomadology", in *Encyclopedia of Identity*, Ronald L. Jackson II and Michael A. Hogg eds. Sage Publications, 2010, pp. 507–509.

- Dreyfus, Hubert L. *Alchemy and Artificial Intelligence*. Rand Corporation Report, 1965, online <https://www.rand.org/content/dam/rand/pubs/papers/2006/P3244.pdf>.
- Eisenhower, Dwight D. “Farwell Adress”. 1961, <https://www.archives.gov/milestone-documents/president-dwight-d-eisenhowers-farewell-address#transcript>.
- Elentir. *Counting Stars*, 9. 30. 2023, <https://www.outono.net/elentir/2023/09/30/the-creator-the-far-from-innocent-message-of-a-film-with-an-impressive-aesthetic/>
- Elsaesser, Thomas. “General Introduction. Early Cinema: From Linear History to Mass Media Archaeology”, in *Early Cinema: Space, Frame, Narrative*, Thomas Elsaesser ed. British Film Institute, 1990, pp. 1–8.
- . “The New Film History as Media Archaeology”, *Cinémas : revue d'études cinématographiques*, vol. 14, n° 2–3, 2004, pp. 75–117.
- Epstein, Jean., *L'Intelligence d'une machine*. Éditions Jacques Melot, 1946, English translation *The Intelligence of a Machine*, translated by Christophe Wall-Romana. Univocal, 2014.
- Gielen, Pascal. “Nomadeology: The aestheticisation of nomadic existence”, in *Life Between Borders: The Nomadic Life of Curators and Artists*, Steven Rand and Heather Felty eds. apexart, 2013.
- Garreau, Joel. *Radical Evolution : The Promise and Peril of Enhancing Our Minds, Our Bodies– and What It Means to Be Human*. Doubleday, 2005.
- Graeber, David. “Of Flying Cars and the Declining Rate of Profit”, *The Baffler*, no. 19, March 2012, online <https://thebaffler.com/salvos/of-flying-cars-and-the-declining-rate-of-profit>.
- Graeber, David and Wengrow, David. *The Dawn of Everything : A New History of Humanity*. Farrar, Straus and Giroux, 2021.
- Guillot, Apolline. “L'IA Ne Peut Donner que ce que'elle A”, in *L'IA est-elle une chance ? – Méditations sur le risque*, Benasayag, Miguel, Gilles Dowek and Apolline Guillot eds. Philosophie Magazine Éditeur, 2024.
- Halden, Grace. *Cyborg Conception: Cultural and Critical Responses to Solo Motherhood by Choice*. Palgrave Macmillan, 2024.
- Harari, Yuval. *Nexus: A Brief History of Information Networks From the Stone Age to AI*. Random House, 2024.
- Haraway, Donna. “A Cyborg Manifesto: Science, Technology, and Socialist- Feminism in the Late Twentieth Century”, in *Simians, Cyborgs, and Women: The Reinvention of the Nature*. Routledge, 1991, pp. 149–182, first published in *Socialist Review*, 1985.
- Hayles, Katherine N. *How We Became Posthuman*. University of Chicago Press, 1999.
- . *My Mother Was a Computer: Digital Subjects and Literary Texts*. University of Chicago Press, 2005.
- . “Unfinished Work: From Cyborg to Cognisphere”, in *Theory, Culture, and Society*, vol. 23 (7–8), 2006, pp. 159–166.
- Henderson, Andrew. *How to Reclaim Your Freedom with Offshore Bank Accounts, Dual Citizenship, Foreign Companies, and Overseas Investments*. Nomad Books, 2018.
- Holland, Eugene W. *Nomad Citizenship: Free-Market Communism and the Slow-Motion General Strike*. Univ Of Minnesota Press, 2011.

- Huckvale, David. *Artificial Intelligence in the Movies: A History*. McFarland, 2024.
- IDF, The Israel Defense Forces. "The IDF's Top 10 Innovations", 09.01.2022, <https://www.idf.il/en/mini-sites/technology-and-innovation/the-idf-s-top-10-innovations/>.
- Kasparov, Garry. *Deep Thinking: Where Machine Intelligence Ends and Human Creativity Begins*. Perseus Books, 2017.
- Kember, Sarah. *Cyberfeminism and Artificial Life*. Routledge, 2003.
- Joy, Bill. "Why the Future Doesn't Need Us", *Wired*, April 1, 2000, <https://www.wired.com/2000/04/joy-2/>.
- Kellner, Douglas. *Media Culture. Cultural Studies, Identity, and Politics Between the Modern and the Postmodern*. Routledge, 1995.
- Kim, Kyung Hee. "Creativity Crisis Update: America Follows Asia in Pursuing High Test Scores Over Learning", in *Roeper Review*, 43(1), pp. 21–41.
- Kurzweil, Ray. *The Age of Spiritual Machines: When Computers Exceed Human Intelligence*. Viking, 1999.
- . *The Singularity Is near: When Humans Transcend Biology*. Penguin Books, 2005.
- Lorach, H., Galvez, A., Spagnolo, V. et al. "Walking naturally after spinal cord injury using a brain-spine interface", in *Nature* 618, 2023, pp. 126–133.
- Mo Hoosen. "'The Creator' is an anti-Asian embarrassment to science fiction", 2 October 2023, https://thestreamr.com/2023/10/02/the-creator-is-an-anti-asian-embarrassment-to-science-fiction/#google_vignette.
- Mouritsen, Henrik. *Elections, Magistrates, and Municipal ÉLite: Studies in Pompeian Epigraphy*. L'Erma di Bretschneider, 1988.
- Mulderig, John. "Movie Review: The Creator". *Catholic Review*, 2 October, 2023, <https://catholicreview.org/movie-review-the-creator/>.
- Murphy, Paula. *AI in the Movies*. Edinburgh University Press, 2024.
- Neisser, Ulric. "The imitation of man by machine", in *Science*. New Series, Vol. 139, No. 3551, Jan. 18, 1963, pp. 193–197.
- Pop, Doru. "Replicant Theologies of the Early Robocene or The Covenant of Procreating Replicants, Cybernetic Fertility and Divine Androids", in *Caietele Echinox*, volume 34, 2018, pp. 132–142.
- Reuters. "Neuralink's first human patient able to control mouse through thinking, Musk says". *Reuters*, February 20, 2024, online <https://www.reuters.com/business/healthcare-pharmaceuticals/neuralinks-first-human-patient-able-control-mouse-through-thinking-musk-says-2024-02-20/>
- Richards, Greg and Wilson, Julie. "Introduction. Drifting towards The Global Nomad", in *The Global Nomad: Backpacker Travel in Theory and Practice*. Multilingual Matters, 2004, pp. 3–13.
- Scannell Jack D. "Eroom's Law and the decline in the productivity of biopharmaceutical R&D", *Artificial intelligence in science*, 2023.
- Rosewarne, Lauren. *Sex and Sexuality in Modern Screen Remakes*. Palgrave Macmillan, 2019.
- Simon, Herbert A. *The Sciences of the Artificial*, 2nd edn. 1977, first ed. MIT Press, 1972.
- "Motivational and emotional controls of cognition". *Psychological Review*, Vol. 74, No. 1, 1967, pp. 29–39.

- Stiglitz, Joseph. “The Myth of Secular Stagnation”, Project Syndicate, August 28, 2018, <https://cgt.columbia.edu/news/stiglitz-myth-secular-stagnation/>.
- Summers, Lawrence H. “The Age of Secular Stagnation: What It Is and What to Do About It”. *Foreign Affairs*, vol. 95, no. 2, March/April 2016, pp. 2–9.
- Thiel, Peter. “Peter Thiel, Leader of the Rebel Alliance”, interviewed by Peter Robinson. Hoover Institution. 9 nov. 2022, [youtube.com/watch?v=OWXFdEyOKc4&t=0s](https://www.youtube.com/watch?v=OWXFdEyOKc4&t=0s).
- Toropin, Konstantin. “Pentagon Silent on Elon Musk and Starlink Risks as Military Use Expands”. *Military News*, February 2024, online <https://www.military.com/daily-news/2024/11/15/pentagon-silent-elon-musk-and-starlink-risks-military-use-expands.html>.
- United Nations Department of Economic and Social Affairs Population Division. “World Population Prospects 2024”, https://population.un.org/wpp/Publications/Files/WPP2024_Summary_of_Results.pdf.
- Wagner, Alan and Robinette, Paul. “An explanation is not an excuse: Trust calibration in an age of transparent robots”, in *Trust in Human-Robot Interaction*, Chang S. Nam and Joseph B. Lyons eds. Elsevier Academic Press, 2021, pp. 197–208.
- Wiener, Norbert. *God & Golem, Inc.: A Comment on Certain Points Where Cybernetics Impinges on Religion*. MIT Press, 1964.