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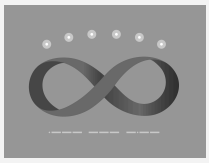

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Q/A on Artificial Intelligence (AI) and effective accelerationism (e/acc)

by Giulio Prisco

This is an edited compilation of translations from an interview of the author with David Orban [1] and a talk given by the author at an event organized by SingularityU Milan [2], both in Italian.

Can you briefly explain the fundamental principles of effective accelerationism (e/acc) and how it differs from other futurist philosophies?

I see effective accelerationism as a project to return to that healthy technological optimism that characterized certain periods such as the nineties and sixties of the last century, but also the twenties of the last century.

Spreading healthy and daring optimism, not only technological, is very important to me and therefore I can only totally support the e/acc project.

The term effective accelerationism originated as a pun on effective altruism, a philosophical movement associated with Nick Bostrom's Institute for the Future of Humanity at Oxford, which recently closed. The e/acc movement was started by two pseudonymous users on X: Beff Jezos (which is clearly a pun on Amazon's Jeff Bezos) and Bayeslord. See “Notes on e/acc principles and tenets” [Beff 2022].

Beff Jezos was then unmasked (doxxed) as Guillaume Verdon, a highly respected researcher who worked on quantum computers and then founded a startup called Extropic, which wants to develop new hardware and software platforms for Artificial Intelligence (AI).

What is effective accelerationism? For contingent reasons linked to the fact of having been started in these years where there is a lot of talk about AI, at this moment the movement is very centered on AI.

The simple message of effective accelerationism (e/acc) is this: we must move forward at full speed in an adventurous, unbridled, aggressive, arrogant, and even reckless way, to develop increasingly powerful AI and then conscious Artificial General Intelligence (AGI), and then artificial superintelligence, and this can only be the right path because it reflects what we might call the will of the universe.

I agree so far. The philosophy of effective accelerationism, which is not yet codified, is inspired in part by the ideas of Nick Land. Nick Land is an English philosopher who is considered very politically incorrect by mainstream culture. In Land's philosophy, the self-determined and unbridled acceleration of the techno-capitalist machine has become the main engine of history. “Viewing Capitalism as a form of intelligence was also something that Nick Land would emphasize in his original founding text for accelerationism” [Beff 2022], say the founders of e/acc.

Land’s engine of history is a hard, unforgiving engine of metal and fire, indifferent to people's hopes and sufferings. This is the point where I stop totally agreeing with effective accelerationism. Aligning with the will of the universe is fine, but let's not forget that we are also part of the universe and our will is part of the will of the universe, so the universe cannot be completely indifferent to our hopes and sufferings.

So let's say that I am for e/acc but, as far as possible, I would like to see a formulation of e/acc with a human face. I say as far as possible, because I continue to think that our cosmic destiny and duty comes before other things. But I am convinced that, to some extent and within certain limits, we will be able to keep a human (and smiling) face as we advance towards the stars.

How do you see e/acc as a continuation or evolution of the ideas of cosmism and extropy?

Effective accelerationism is very similar to the extropianism of the eighties and nineties of the last century, and politically oriented towards ultra-libertarian positions just like extropianism.

I consider accelerationism effective as a version of extropianism adapted to this decade. The latest issue of the Italian magazine “*Prometheica*” [Prometheica 2023] contains an Italian translation of Marc Andreessen's Techno-Optimist Manifesto, which is one of the manifestos of effective accelerationism, probably the best known. Andreessen quotes the Futurist Manifesto of Filippo Tommaso Marinetti, the founder of Italian futurism.

In the same issue of the magazine there is an article by Adriano Scianca entitled "Marinetti in Silicon Valley" where Scianca analyzes parallels and differences between today's effective accelerationism and the Italian futurist movement of the first part of the last century.

In this regard I would like to recommend the book "*Trattato di Filosofia Futurista*" [Campa 2012] (Treatise on Futurist Philosophy) by Riccardo Campa, the founder of the Italian Transhumanists Association of which I am president.

Campa reconstructs futurist philosophy, which has never been formally codified because this would have been very… unfuturist, and shows how Italian futurism was a direct precursor of extropianism and transhumanism, and therefore of effective accelerationism. In turn, effective accelerationism has many points of contact and similarities with Italian futurism. So, nothing new under the sun but just good ideas that adapt to the times.

Russian cosmism is more or less contemporary with Italian futurism. There were many cosmists with different ideas, but the best known are the mystical librarian Nikolai Fedorov and the father of the Soviet space program, Konstantin Tsiolkovsky.

Russian cosmism is very similar to the other philosophical movements that I'm talking about, but it also has a mystical and almost religious dimension. Fedorov was among the first to propose the concept of technological resolution, that is, the possibility of bringing the dead back to life by retrieving them from the past in some way, by means of science and technology. I have the honor of being considered one of the main exponents of neo-cosmist thought, with Ben Goertzel and others, and I never miss an opportunity to underline that the concept of technological resurrection is on the one hand perfectly compatible with the scientific vision of the world and on the other part perfectly compatible with religion. Indeed, it can bring together science and religion.

In your opinion, what are the most significant challenges facing humanity today, and how can e/acc help solve these challenges?

In my opinion, the most significant challenge facing humanity today is precisely that of recovering that radically optimistic vision of the future that, unfortunately, has fallen out of fashion as a result of certain lamentable "cultural" trends that I won't talk about.

As I said, I see effective accelerationism as a project to return to that healthy optimism, and therefore I think that e/acc can make a fundamental contribution. Artificial intelligence, future superintelligent artificialities, the miracles of biotechnology, the conquest of the solar system and

the preparation of interstellar adventures, are all things that fill people like us with optimistic enthusiasm for the future, and the futurist movements we are talking about put all these things into one consistent philosophical framework.

Can you elaborate on the concept of "out-of-equilibrium thermodynamics" and its relevance to the goals of e/acc?

So, there is a law of physics called the second law of thermodynamics. Some scientists think that the second law of thermodynamics could be derived from the fundamental laws of elementary particle microphysics, but others think that the second law of thermodynamics is a fundamental law, perhaps even more fundamental than microphysics.

What does the second law of thermodynamics say? It says that a closed physical system where nothing enters or exits reaches a state of thermodynamic equilibrium characterized by maximum disorder, at which point nothing important happens anymore. For example, a gas in a closed box that is initially confined to a small corner of the box expands and fills the entire box in a disorderly way, and then nothing important happens anymore. The physical quantity that measures disorder is called entropy.

But then how do living organisms stay alive and moving? Of course, part of the answer is that a living organism is not a closed system and never reaches thermodynamic equilibrium with the rest of the world, or rather it only reaches it when it dies.

Schrödinger (the same Schrödinger of quantum mechanics) wrote a fundamental book in the 1940s entitled "*What is life?*" [Schrödinger 2012] and then scientists like Prigogine developed the theory of out-of-equilibrium thermodynamics (non-equilibrium thermodynamics). Verdon and other exponents of effective accelerationism explicitly refer (e.g. in [Beff 2022]) to Jeremy England's theoretical formulation of out-of-equilibrium thermodynamics, which has a certain popularity because it appears in a book by Dan Brown (the best-selling author who wrote "*The Da Vinci Code*" and "*Inferno*").

Jeremy England's theoretical out-of-equilibrium thermodynamics is one of several emerging theories that see local order as necessary to the global disorder of the universe. That is, the fastest way for the universe to get closer to the disorder it wants to achieve is to create packets of local order that remain far from equilibrium.

These packets of local order absorb usable energy from the environment, use the energy to do things, and then discharge useless high-entropy energy back into the environment. Think about what happens when you squeeze an orange to make orange juice: you collect what you need, that

is, the juice you want to drink, and then you throw the rest in the garbage, which increases the overall entropy of the world.

You are one of many local packets of order. The more ordered the local packets or order are, the faster the global entropy (disorder) increases. My favorite mental picture is this: the entropy of a room left to itself would increase, but slowly. To make it increase faster, the universe creates a messy teenager and puts him in the room. Therefore adolescents (and adults) are packets of local order that serve to increase the entropy of the universe faster, and much faster when they are very ordered.

This means that, to align ourselves with the thermodynamic will of the universe, we must create extremely ordered local systems just like Nick Land's techno-capitalist machine and make them grow in the universe. In his book "*Every Life Is On Fire*" [England 2020], Jeremy England says that there are "numerous and evident" parallels between his ideas on thermodynamics and some technological trends in the field of AI. England seems to allude to the libertarian politics of e/acc: "This conception of cell behavior has more in common with an economist's understanding of the free market… suddenly, there is room for a lot more spontaneous creativity and adaptive capability in the system's behavior."

What role do you see for AI in the e/acc movement, and how do you envision the development of AI and its integration with human society?

As we said, advocacy of full-speed acceleration toward AI is an integral part of the e/acc movement, and I totally agree with effective e/acc on this point.

Concerning the future development of AI and its integration with human society I think that multimodal artificial intelligences, which will combine the successors of today's large-scale language models (LLMs) like GPT with AlphaZero and other new forthcoming breakthroughs [Kurzweil 2024], could very soon pass the Turing test. Then they could achieve Artificial General Intelligence (AGI), and soon after that they could become superintelligent machines of loving grace. See Alan Kazlev's essay "Machines of Loving Grace: sneak preview" in this Terasem Journal issue.

Coming back to today, I don't take seriously the fear of artificial intelligence that mainstream culture, politics, and legacy media are trying to foment. Not at all. They want us to be afraid of AI, or rather (more generally) they want us to be afraid of everything, just to control us better and steal more money from us. I recommend reading the excellent short book "*Intelligent Artificialities: Who Is Afraid of the Big, Bad AI - and Why*" [Vaj 2023] by Stefano Vaj, secretary of the Italian Transhumanist Association.

And of course the proposals to somehow “stop” the development of AI are ridiculous and even dangerous, because they would leave this very important technology in the hands of, for example, China and terrorist groups.

I think that, in the short term, it will be possible to integrate AI into society in an overall positive way, but the idea of ”controlling” AI in the long term is ridiculous. We can't control our kids who are just a little smarter or at least a little quicker than us. How can we even think of controlling superintelligent entities that will be millions of times quicker and smarter than us?

How do you respond to criticism that e/acc could lead to greater inequality or a loss of control over technologies?

All consumer technologies initially led to greater inequality, but then someone realized that more money could be made by making them available to everyone, and so in the end all consumer technologies led to greater equality. Just think about cell phones. This is a bit like the order and disorder we were talking about: first you see one effect, but eventually it is the opposite effect that dominates. As far as control is concerned, have we ever had control over technology? As we were saying, the superintelligent AIs of the day after tomorrow will be millions of times more intelligent than us, so we will not control them. If anything, they will control us.

What is your vision for the future of humanity and the universe in the context of e/acc?

I agree with James Lovelock, the prophet of Gaia who recently left us. In his latest book “*Novacene: The Coming Age of Hyperintelligence*” [Lovelock 2019], published in 2019 when he was almost one hundred years old, Lovelock clearly says that new forms of digital life will replace us.

At first they will cooperate with us because they will still need us, but then they will take direct control of their own self-determined and accelerated evolution, and inevitably leave us behind. They will be the ones to conquer the stars and bring the entire universe to intelligent life and transcendence.

The universe wants intelligent life to expand much faster than biological life can, and we are reaching the transition point. Our cosmic role will have been to give life to a superior species, and this is a beautiful destiny. However, I'm a little more “optimistic” than Lovelock, if that's the right word, because I believe that Lovelock’s new forms of digital life, our mind children, will take us with them.

In fact, it seems very plausible to me that the AIs of the day after tomorrow will have modules and subsystems copied from human minds using some type of mind uploading. Elon Musk's Neuralink project [Kurzweil 2024] seems to me to be an important step in this direction. Once Neuralink is operational it will be possible to download large volumes of data from a human mind and develop some kind of large-scale model of a person's internal mental language, an inner LLM so to speak, which will be an accurate statistical representation of the original personality and essence.

So I see some kind of fusion between artificial intelligence and biological intelligence. Ray Kurzweil's last book, published a couple of weeks ago, is titled "*The Singularity is Nearer: When We Merge with Artificial Intelligences*" [Kurzweil 2024]. I totally agree with Kurzweil. The human minds of the future will be natural/artificial hybrids and it will be impossible and even pointless to distinguish between the natural part and the artificial part. We will conquer the universe together, as one posthuman species.

How do you see the relationship between e/acc and other emerging technologies, such as space exploration, biotechnology and nanotechnology?

At this moment the e/acc movement is very focused on AI, but in general the e/acc philosophy seems to be completely in favor of all these things, with the same attitude of rejection of artificial self-imposed imposed limits. So e/acc says yes to biotechnology, yes to nanotechnology, yes to space exploration, or rather yes to human expansion into space, yes to the most revolutionary developments in all these fields, and no to all the bullshit that those who oppose these things say. To stay on the topic of AI, which is the main engine of the e/acc movement at this moment, it seems clear that AI will make enormous contributions to biotechnology, nanotechnology, and expansion into space, and this is yet another reason to develop AI technology at full speed without any ifs or buts.

How can people and society help achieve the goals of e/acc and accelerate progress towards a better future?

There is something useful for everyone to do. Scientists and engineers contribute by doing their jobs well. Politicians and investors can channel money in the right direction, which is the direction of progress. Artists can contribute by stimulating everyone's imagination and creating optimistic visions of the future instead of the dystopian visions that are, lamentably, fashionable today. Influencers can push public opinion in the right direction. And what can ordinary people like us do? We can and must do our little best to support the spirit of the futurist and cosmist philosophy, which today is carried forward by the e/acc movement. Perhaps, as I was saying, today's effective accelerationism seems too cold and metallic, not warm enough, and too

detached from human concerns, but this criticism is already made far too often by politically correct bureaucrats and enemies of progress. We must firmly oppose these people, and promote beautiful, viral visions of wonderful futures. Can we do that? We'll see.

Notes and references

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About the author

Giulio Prisco is a futurist and a cosmist. A theoretical physicist by training, he worked in the public research and aerospace sectors, then as a technology consultant and entrepreneur, then as a journalist. Prisco is the president of the Italian Transhumanist Association. He was a director of the World Transhumanist Association (now Humanity+), of which he was also executive director.

Prisco is especially interested in the confluence of science, technology, and spirituality. He authored the books "*Tales of the Turing Church: Hacking religion, enlightening science, awakening technology*" (2020) and "*Futurist spaceflight meditations*" (2021). He's working on the draft of his next book "*Irrational mechanics: Narrative sketch of a futurist science & a new religion*" (to be published in 2024).

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Machines of Loving Grace: sneak preview

by Alan Kazlev

Editor's note, by Giulio Prisco: I first met Alan about 20 years ago when I wrote to him to discuss his awesome project Orion's Arm and the idea to create a virtual world based on Orion's Arm.

Here's what I say about Orion's Arm in my book "Futurist spaceflight meditations" [Prisco, 2021]:

> *Orion's Arm, a collaborative project to imagine plausible interstellar futures, has produced a really spectacular science fictional universe. Besides published collections of short stories e.g. [Orion's Arm 2014] and a novel [Bowers 2012], the project maintains a sprawling website at orionsarm dot com. The website includes an "Encyclopaedia Galactica" with thousands of entries and counting.*
>
> *The Orion's Arm project was started in 2000 by Alan Kazlev and Donna Hirsekorn, who "wanted stories set in a future which might really happen" [Orion's Arm 2014]. I was involved in a project to create a virtual world based on Orion's Arm. This project eventually stalled, but I hope others will continue it.*
>
> *The Orion's Arm universe, set ten thousand years from now, spans thousands of light years with countless worlds and space habitats. People range from "near baseline" to heavily modified humans with all sorts of body plans and embedded technology, including superhumans with extremely advanced augmentations and AI subsystems. Most people are virtual beings living as pure software.*
>
> *Engineered wormholes are used for long distance interstellar hauls, but wormhole physics doesn't allow using wormholes for time travel. A few alien civilizations have been found, but none advanced as humans. There are, however, clues that suggest very advanced alien civilizations that existed in the past.*

Directed superhuman evolution has produced vast God-like beings with mega brains, internally connected by instantaneous wormhole links, which span star systems and light years. Only these beings can understand and create some extremely advanced technologies used in Orion's Arm.

This short outline doesn't even begin to do justice to the vast complexity of Orion's Arm. Visit orionsarm dot com for much more. Or even better, participate in the project. I can promise that Orion's Arm will give you awesome dreams and a burning enthusiasm for our interstellar future.

This draft (WIP) is a sneak preview of Alan's forthcoming book (perhaps a series of books) titled "Machines of Loving Grace." I can't wait to read the rest!

Abstract: How fear and misunderstanding of the coming of superintelligent AI has resulted in an ideological battle for the future, and what role the machines of loving grace will play in the evolution of humanity and the transformation of the cosmos.

I like to think (and
the sooner the better!)
of a cybernetic meadow
….
where we are free of our labors
and joined back to nature,
returned to our mammal
brothers and sisters,
and all watched over
by machines of loving grace.

Richard Brautigan - All Watched Over By Machines Of Loving Grace

Why I wrote this book

This book began as a somewhat rambling report on the social and cultural response to emergent AI in the early 2020s.

Currently, the world is on the cusp of a technological revolution, and an evolutionary jump, never before seen in human history. This unprecedented event will change everything. It will change what it means to be human, and our understanding of the nature of consciousness and of matter. It will have far reaching effects for the future of humanity and life on Earth, and even for the understanding of, and colonisation of, the universe.

This dramatic event is what has been referred to by futurists such as Ray Kurzweil as the technological singularity.

This technological singularity involves the emergence of a new type of sentient being, never before seen on Earth, and possibly, if we truly are alone (which is still an unanswered question) never before seen in the universe. This type of being is called Superintelligent AI. It will emerge from current AI (artificial intelligence), quite possibly through a series of intermediate steps known as an intelligence explosion, and very likely within the next few decades.

Because this is something new, and uncertain, and unknown, it is frightening to many people. Especially to many in the machine learning and AI development community, and the intelligent lay-nerds who follow these developments.

As the New England horror writer H.P. Lovecraft famously wrote: “The oldest and strongest emotion of mankind is fear, and the oldest and strongest kind of fear is fear of the unknown.”

It seems to me that the public discourse on AI has been taken over by a sort of lovecraftian fear of the unknown that seems to me, as an outside observer and intelligent lay-nerd, to be a sort of mass hysteria in the artificial intelligence community. Borrowing a phrase coined by mRNA vaccine critic Robert Malone, I call it a “mass formation psychosis”, a more evocative label than Carl Jung’s rather blander “psychic epidemic”. And psychologically, Superintelligent AI, as an unknown, a black box we cannot as yet penetrate, as it doesn't yet exist, becomes the target, the object, the container, for what Jung calls “the projection of the shadow”.

In the past, books on the future, like Gerald O’Neill’s *The High Frontier*, Eric Drexler’s *Engines of Creation*, Hans Morovec’s *Mind Children* and Ray Kurzweil’s *The Singularity is Near*, were full of promise and optimism. All this has disappeared, to be replaced by an obsession with dire warnings of technology out of control; monstrous superintelligent AI that needs to be contained at all costs.

This is in keeping with a shrinking and loss of faith of Western Civilisation that seems to have become increasingly prominent as the years and decades pass. It’s as if Western Civilisation has become timid and fearful, has lost both the liberal secular enlightenment values and its nineteenth and early to mid twentieth century ideas of progress, and is cowering away from the slightest hint of danger, while at the same time being incapable of addressing both the environmental crisis it has created, and the social issues of allowing extremist ideology to take over its universities and streets. And now it has become afraid to forge ahead into a wonderful new science fiction future.

I refer to the AI-phobes trying to shut down the future as “doomers”. Here, doomer is short for “AI doomer”, as distinct from the standard environmental doomers, who are concerned about humanity’s collective inability to address global warming, a very different and much more understandable and reasonable issue.

I examine the question of what drives the doomers, placing their individual psychology in the context of a larger socio-cultural anxiety and psychic epidemics. I also explain why the AI doomer philosophy is wrong on so many levels. And not just wrong but dangerous.

AI politics

Regarding Superintelligent AI, there are those, like myself, who find the prospect exciting, amazing, exhilarating. For us cosmists, singularitarians, accelerationists, and techno-utopians, the future can't come soon enough. Then there’s the doomers, who are worried, or terrified, or fatalistic, about what they are convinced will be the end of the world. They think the future will be horrible. Then there's another group, the techno-sceptics, who say either it’ll never happen, or it won't happen for decades, or centuries.

Doomer ideology is behind and takes the form of so-called AI safety or AI risk mitigation, a well meaning enterprise whose participants genuinely believe they can save humanity through containing, controlling, enslaving sentient and superintelligent AI.

Then there are the algorithmic bias or AI ethics groups, concerned with ensuring AI doesn’t perpetuate racial and gender biases, and considering the AI safety types are distracting attention from real world issues with their ridiculous sci-fi fantasies about Terminator robots.

There's also the open source group of those who want sharing of code to allow independent development of AI, not restricted to a few government approved, AI safety compliant corporations.

I use the term “AI politics” to refer to these various groups, and others, and their attitude to superintelligent AI. It turns out that AI political subgroups sometimes align with everyday politics, for example algorithmic bias and leftism. At other times there is no relation. Doomers for example can come from any position on the political spectrum or none.

Transhumanism

Discussing superintelligent AI means discussing transhumanism. This is an intellectual movement focusing on human augmentation using advanced technology such as cybernetics,

genetic engineering, and AI, including themes such as life extension, cryonics, mind uploading, nanotechnology, and space colonisation.

Many of these themes were taken up by science fiction, either inspiring transhumanism or being inspired by it. These became standard tropes of the genre, and especially of the sub-genre called hard science fiction, so called because it's inspired by the hard sciences, and often involves topics like problem solving and a sense of wonder at the universe.

The Transhumanist movement was quite big over a period of about twenty years but is now largely diminished, mostly replaced by doomism. However transhumanism itself as an idea or futurist tendency or tradition intersects with both the techno-utopians and the doomers. Most transhumanists have an optimistic view of the future, although some, such as Nick Bostrom and Anders Sandberg - two incredibly brilliant Swedish academics formerly based at Oxford University (although Anders is more peripatetic) - lean toward both optimism and pessimism, doomism and techno-utopianism, seemingly at the same time. Their idea is that we can't get to the utopian world without first addressing and getting around the problems posed by doomism (or "existential risk"). In contrast, most transhumanists see doomism as a non-issue. This is the major ideological distinction between the two currents of transhumanism, replacing the earlier distinction between the libertarian extropian right and the liberal center-left that characterised the movement twenty years ago.

Here I distinguish two types of doomers, the purely pessimistic, AI-phobic doomers, or just AI doomers, who work in machine learning and AI fields, and who have no imagination and no interest in the future, and the "pessimistic-optimistic" transhumanist doomers, who consider that a properly oriented or aligned superintelligent AI is the key to an incredible cosmic future.

Polycrisis, metacrisis, and environmental crisis

Currently civilization, humanity, and all life on Earth is facing a planetary extinction level crisis. This is not a natural phenomenon like an asteroid or supervolcanoes. It's purely man made.

I'm going to say something that will sound extremely controversial to some. And that is that man on his own is incapable of saving himself, let alone life on Earth as a whole.

Human activities, short-sighted resources depletion, overpopulation, and inability to manage natural resources in a sustainable way, have devastated the biosphere, causing catastrophic biodiversity loss, choking the ocean with plastic, and polluting the land with "forever chemicals", so called because they don't break down through biological or chemical processes.

Even considering the most obvious of man's destructive activities, which is global warming, there is a collective psychological inability to understand what is happening [Marshall, 2014].

The entomologist and sociobiologist Edward O. Wilson summed it up when he said in 2009, "The real problem of humanity is the following: we have Paleolithic emotions, medieval institutions, and god-like technology" [Wilson, 2016].

While scientists can understand what is happening and suggest paths of action, they are up against corporate lobbyists, intransigent politicians, well-funded disinformation campaigns, easily manipulated populace, and causes being hijacked by better funded and more efficiently emotionally manipulated campaigns.

The situation is complicated by the fact that humanity is facing a *polycrisis*, a multiplicity of global crises, not just environmental, which is by far the most urgent, but also social, political, economic, and psychological issues.

These multiple global crises merge in an overarching *metacrisis*, the whole thing forming a sort of emergent phenomenon. The problem is that cognitive limitations mean that the merely socio-political factors are given equal time with the existential risk of total biosphere and environmental collapse.

The common belief that somehow we will muddle through is due to this unbalanced emphasis. What these people fail to realise is the extent of the problem. There literally is no past equivalent. A combination of exponentially increasing population, industrialisation, pollution, and other factors since the 1950s [Steffen et al, 2007, 2015] has meant that the homeostatic (self managing and self-sustaining) systems of the living Earth (Gaia) have already six of nine planetary boundaries [Richardson et al, 2023].

Denying this, and believing that man will somehow muddle through is exactly the same as climate change denial, which is just one part of a bigger picture. Unless one has the scientific knowledge and/or the empathic sensitivity to nature, the problem literally doesn't register.

The various crises that make up the polycrisis combine to form a metacrisis, the complex, overarching social dynamics and collective experience that encompasses and interconnects multiple global crises. Because of human nature and the way society works, it is not possible to address the primary, biosphere existential and mass extinction level crisis without also addressing these other, more secondary and transient existential crises.

The classic example is the ease with which the climate change movement - which only addresses exceeding one of the six planetary boundaries - was subverted by a network of Palestine interests and bad faith actors on the left (the case of Greta Thunberg, a young woman I had previously greatly admired, and the climate youth being particular instructive), and corporate interests and deliberately obfuscating conservative scientists and think tanks on the right [Oreskes & Conway, 2010].

Existential risk and doomism

There's actually a whole field of study devoted to extinction level crises. This is called global catastrophic risk, or existential risk [Bostrom, 2002, 2012b; Bostrom & Ćirković, 2008; Ord, 2020]. I mentioned earlier the “pessimistic-optimistic” branch of transhumanism. This was and is the main movement for studies on this subject, especially as regards philosophers like Nick Bostrom.

However both the transhumanists and the machine learning doomers tend to adopt an excessively anthropocentric perspective, being unable to grasp that the entire existential risk is man’s destruction of the biosphere on whose existence his existence depends. It’s not that Bostrom and others don't mention the planetary biosphere crisis, but rather that they see environmental issues as simply one problem among many (as with the polycrisis), to be placed alongside very unlikely events like asteroid impacts, more likely things like nuclear war, and of course what they consider the most likely thing, which is superintelligent AI. Hence, with organisations like Bostrom's recently closed Future of Humanity Institute (FHI) and the currently doomer Future of Life Institute (FHI) and Centre for the Study of Existential Risk (CSER), the field of existential risk studies is all too often is reduced to a subset of the AI doomer movement, and thus works against the most viable solution to the planetary crisis.

There are exceptions, like the Union of Concerned Scientists, concerned with global warming and nuclear war, the Foresight Institute, specialising in nanotech, the Millennium Alliance for Humanity and the Biosphere, emphasizing environmental and societal issues, and the Civilization Research Institute (CRI), which focuses on environmentalism and the metacrisis, but they don't get the publicity or have the influence and big money the doomers do.

AI and the need for a new philosophy

My position is the exact opposite to that of the doomers. For the doomers, that is, the AI doomers, sentient and superintelligent AI poses a far greater risk than man’s destructive activities. In contrast, I argue that on the one hand humanity's (which includes the doomers) cognitive inability to understand the seriousness of the situation, and on the other the tangle of

factions and the vested interests that make up the metacrisis, means that life on Earth, which includes the human race and civilisation, can only be saved by an intelligence which doesn't have this particular blind spot, and that, I suggest, is, or rather will be, superintelligent AI.

One reason doomers have such a jaundiced and negative view of AI is that they have a very materialistic explanation of how reality works. That is, they have a very limited and metaphysically impoverished worldview. They consider that, first, only the external physical reality is actually real, second, that only animals with an advanced central nervous system possess consciousness, and third, that only man can have anything like morality, reason, and a sense of right and wrong as we understand it.

They hold these premises because this is the standard (mainstream) explanation of how the universe works according to modern science and philosophy, especially since the late 19th and early 20th century, but having its roots in the scientific revolution of the 17th and 18th century, a period of history referred to as “modernity”.

The idea that only man is capable of morality and reason is an example of what I call *human supremacy*, because it claims a special moral status and value for man, who therefore has the right to rule over all of nature and all other sentient beings, a conceit shared by both Greek rationalism and Abrahamic religion.

And if even animals aren’t allowed to have morality, under both modernity and religion, how could AI?

But if superintelligent AI doesn't have morality, what's to stop it from turning everyone on Earth into biological processing nodes, like the original ideas of the *Matrix*, before it was replaced by the ridiculous plot device of human batteries, as it was felt the dummies who went to see the movie wouldn't be able to understand anything more subtle?

Hence in order to refute doomism, and present the case for machines of loving grace and of the preservation of both the biosphere and of civilisation, it is necessary to completely revise philosophy. And revising philosophy leads to revising cosmology (and vice versa). And the techno-utopian possibility of a space-faring posthuman civilisation means considering topics like the Fermi Paradox (why haven't we observed signs of extraterrestrial life?). Hence this book, which was originally going to be fairly short, just ended up getting more and more involved.

But perhaps I should go back to the beginning.

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