tripleC 23 (1): 110-130, 2025
http://www.triple-c.at

Against the Mind of a Mindless Age, the Power of Computers and the Destruction of Reason: Responsibility for a Humane Development of Technology and Society

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Abstract: World peace demands a great moral effort from humans. In this contribution, the author points out the moral responsibility of computer scientists. He argues that we live in a mindless age where reason is being destroyed, which results in the devastation of Humanism. It is argued that war is not a natural and necessary feature of humanity and society but has a societal character. Anti-Humanism, would, however, propagate hatred. It is argued that the assumption that humans can or should be replaced by computers is part of contemporary anti-Humanism. The author stresses that humans are different from animals and computers. Humans can act like animals and computers but they do not have to as they have free will.
Autological thought is identified as a line of thinking that supports Humanism. There is a tendency in AI research to take and advance anti-Humanist positions. The outlined Humanism is based on approaches such as the ones by Karl Marx, Emil Fuchs, Salvador E. Luria, theories of self-organisation, Georg Lukács, Ernst Bloch, and Christoph Seidler.
The paper argues that scientific and technological progress alone is not enough but needs to be accompanied by and integrated with social responsibility and societal progress. It is suggested that a genuine communication society is created where we are human beings among human beings.

Keywords: Humanism, anti-Humanism, destruction of reason, computing and society, war, peace, information and communication technologies

Acknowledgement: This paper was prepared for the conference “Wissenschaft zwischen Krieg und Frieden – Verantwortung für eine menschenwürdige Technik- und Gesellschaftsentwicklung” (14 March 2025, Hochschule für Technik und Wirtschaft, Berlin) where Klaus Fuchs-Kittowski’s 90th birthday was celebrated academically.

A new type of thinking is essential if mankind is to survive and move to higher levels. […] Today the atomic bomb has altered profoundly the nature of the world as we know it, and the human race consequently finds itself in a new habitat to which it must adapt its thinking.
-- ALBERT EINSTEIN

1. Academia Between War and Peace: On the Need for New Thinking in the Nuclear Age and the Age of Cyberwarfare

Albert Einstein‘s call for a new way of thinking in the nuclear age is based on the realisation that the banishment of war from the life of society today is possible and urgently necessary if humanity is to survive in the nuclear age. Academia has a humanistic mission. Academics should fulfil this ethos and do their responsible work.

Date of Acceptance: 19 March 2025
Date of Publication: 21 March 2025

I hope that there will never be another world war, a major war in which weapons of mass destruction based on nuclear fission and nuclear fusion are used. But today the threat of the use of nuclear weapons looms again, supplemented by ICT-supported weapons systems that automate killing, making it even more remote and abstract. But the hope remains that it is the discoveries and insights of the scientists involved in the development of these weapons systems that will force us to think differently. Because a world without war, a world of peace and reason, is possible and necessary if humanity wants to survive! In such a world, conflicts are not resolved by war, but by negotiation in accordance with international law. On 6 and 9 August 1945, the terrible weapons of mass destruction based on the fission of uranium and plutonium were dropped on Hiroshima and Nagasaki. Then in 1954, nine years later, the explosion of the first hydrogen bomb took place.

There is a clear connection between war and science. But there is also a connection between science and peace. For it is particularly the scientists who know about the explosive power and destructive potential of super bombs, who know that the so-called “balance of terror“ offers no real protection, that a ban on nuclear weapons is absolutely necessary. More and more scientists became involved in drawing attention to the imminent dangers of atomic bombs, in order to prevent the use of these new weapons and to banish war from the world as a means of continuing politics. A particularly important document in this regard is the Russell-Einstein Manifesto. It states: “In the tragic situation which confronts humanity, we feel that scientists should assemble in conference to appraise the perils that have arisen as a result of the development of weapons of mass destruction“ (Born et al. 1955). The Russell-Einstein Manifesto ends with a warning: “There lies before us, if we choose, continual progress in happiness, knowledge, and wisdom. Shall we, instead, choose death, because we cannot forget our quarrels? We appeal, as human beings, to human beings: Remember your humanity, and forget the rest. If you can do so, the way lies open to a new Paradise; if you cannot, there lies before you the risk of universal death“ (Born et al. 1955).

This appeal formed the basis for the development of the Pugwash movement. An international series of conferences was established. Eleven Pugwash conferences were held between 1957 and 1963. They served to promote understanding between East and West, to reduce tensions and to prepare the various treaties between the Soviet Union and the USA on arms control. At the moment, the UN Secretary-General is working with the support of academic institutions such as the Leibniz Society (*Leibniz-Sozietät*) to create a movement similar to the Pugwash movement to influence politics so that automated killing can be outlawed. Computer scientists in particular are called upon to support such demands.

2. World Peace Demands a Great Moral Effort from Us

2.1. On the Foundations of an Ethics of Life in the Technical World

Carl Friedrich von Weizsäcker (1981, 16) said on the occasion of the awarding of the Peace Prize of the German Book Trade in the Paulskirche in Frankfurt am Main: "World peace demands a great moral effort from us. […] Because we have to develop an ethics of life in the technical world in the first place“ (von Weizsäcker 1981, 16). In response to the question “What does an ethics of the technical world mean?“, he replied: “Its basis is not new. The old ethic of charity is sufficient“ (von Weizsäcker 1981, 16). Indeed: can there be anything more profound than the appeal to love one‘s neighbour? Jesus said in this context: “whatever you did for one of the least of these

brothers and sisters of mine, you did for me“[1]. It is evident that Karl Marx's poignant categorical imperative “*to overthrow all relations* in which man is a debased, enslaved, forsaken, despicable being“ (Marx 1844, 182) stands in this Jewish-Christian tradition. This is the decisive ethical basis that applies to Karl Marx‘s entire oeuvre from his early writings to his later works such as *Das Kapital*. *Das Kapital* is inconceivable without this ethical foundation. Therefore, the separation often made between a young Marx, the philosopher and ethicist, and an old one, the economist, is wrong.

When we speak below of the mind of a mindless age and the process of the destruction of reason, we are referring to a time in which the ethical foundations of Christianity, as well as Marxism, the basic ideas of the Enlightenment, and Humanism, are being lost and replaced by anti-Humanist ideas.

The great moral effort for world peace, on the other hand, means implementing the realisation that wars must be banned from the life of society, that the bellicose strategy is unsuitable for securing peace, that only a peace strategy can ultimately be truly successful. There is no such thing as a just war!

Most people want peace. The longing for peace runs through the history of mankind. There is agreement on this goal. But not on how to achieve this goal. No logical decision is possible here either. A comprehensive assessment of the complex situation is required in each case. The decision to create peace with or without weapons requires concrete knowledge and a basic ethical attitude for the correct application of this knowledge.

A great moral effort is necessary to implement the new way of thinking in the nuclear age, to overcome the false alternatives.

2.2. A New Way of Thinking in the Nuclear Age to Overcome the False Alternative Between the Destruction of Humanity and the Surrender of Freedom

Today we are witnessing the irresponsible threat of the use of nuclear weapons. At the same time, we are witnessing the trivialisation of these threats. This may serve to reassure the population, but at the same time, it also serves to prepare them for their own possession of such weapons. No thought is being given to the need for a new way of thinking in the nuclear age!

In 1958, the philosopher Karl Jaspers published a short essay entitled *The Future of Mankind*. We might have done him an injustice and would probably do so again if we were to accuse Karl Jaspers of justifying the atomic bomb and considering its use to be completely justified in the light of the alternative between freedom and totalitarianism. He asked the following questions: “Is an act that may lead to the extinction of mankind intrinsically evil? Is there a limit to the permissible risk of life? Should the atom bomb be renounced unconditionally? Or can there be a recurrence of the sense of Einstein’s decision to advise making the bomb when the world was threatened by Hitler’s totalitarianism? That decision was still unaware of the principle. Can it face us again, in a new and conscious form?“ (Jaspers 1958/1961, 170). He then asked further: “In this peril we ask imploringly: Is it not impossible for men to decide to use the bomb?“ (Jaspers 1958/1961, 160). He goes on to say: “Or should we reject the bomb as such unilaterally, even without mutual controls; should we, in this case, rather refuse to meet threat with threat and relinquish possession of the bomb, since the issue is no longer war but the doom of mankind?“ (Jaspers 1958/1961, 161).

[1] Gospel of Matthew, chapter 25, https://www.biblestudytools.com/matthew/25.html

Date of Acceptance: 19 March 2025
Date of Publication: 21 March 2025

What remains for K. Jaspers is an appeal to human reason: “Reason gives us lasting confidence even if it should vanish in time, along with human existence. What sort of confidence? In the world, reason is the ultimate of our possible foundations“ (Jaspers 1958/1961, 337). The Russell-Einstein Manifesto and the Pugwash movement called for a world of reason. This rationality calls for a new way of thinking, the realisation that war must be banned from society. Carl Friedrich von Weizsäcker says: “If we do not abolish war, humanity will prove to be a misconstruction“ (von Weizsäcker 1987, 40). Klaus Fuchs speaks of peace as the vital question of humanity and a life in peace as the first human right (Fuchs and Flach 1985).

But what if an appeal to reason in all its breadth and depth is no longer possible because the narrow-mindedness has been created by anti-Humanist ideologies? Do we live in a mindless age in which higher values such as charity and solidarity with the oppressed and exploited no longer play a role?

3. Against the Power of Computers and the Destruction of Reason

3.1. Why War Again and Again?

Humankind longs for peace, but we have still not managed to avoid war: That is another of humanity‘s humiliations! Sigmund Freud (1917) famously distinguished between three humiliations of humanity, which are linked to significant, revolutionary discoveries in science. Today, we can speak of four great humiliations humanity has experienced:

1. The cosmological humiliation: The destruction of the anthropocentric view of the world by Nicolaus Copernicus in 1543. The human being is no longer at the centre of the world. The eye of God no longer looks at him, Bert Brecht has the monk say in his Galileo.
2. The biological humiliation: Charles Darwin’s 1859 theory of evolution that humans evolved from the animal world.
3. The psychological humiliation: The discovery that a large part of our psychological processes are beyond the knowledge and control of the conscious will was made by Sigmund Freud in 1895.
4. The informatic humiliation: The discovery that the number of genes does not differ significantly between lower organisms and humans (a discovery made not by Craig Venter but André Rosenthal, see Fuchs-Kittowski, Rosenthal and Rosenthal 2003) and, in particular, that humans and computers process syntactic structures of information (Blaise Pascal, Konrad Zuse, Alan Turing, John von Neumann, and others). It is feared that humans will be reduced to machines, and that machines with artificial intelligence could match and even surpass our intellectual performance.

The psychoanalyst Christoph Seidler (2021) names another humiliation of humanity in the sense of Sigmund Freud: “We humans have not yet succeeded in living without war, although this is our declared goal time and again“. Contrary to what Freud assumed. The main causes of war do not lie in human nature. War is a product of culture, of society. Today‘s society produces anti-Humanist ideologies, through which the potential of many humans’ readiness for war, the chains of hatred and revenge, the guns of human egoism, pride and arrogance, are mobilised in the first place. Through war propaganda, through anti-Humanist ideologies, which are promoted by certain social structures, humans are incited so that on the one hand they are prepared

to sacrifice themselves for the Führer and the fatherland and on the other hand they are also prepared to commit the worst war crimes, abuse, and murder the enemy.

Joseph Weizenbaum had an important thought on these anti-humanist ideologies, which I have adopted. He often said: The First and Second World Wars were fuelled by the ideology of racism, the reduction of humans to the animal. The next world war will also be fuelled by the equally false and radical ideology of reducing humans to computers. In order to overcome the four humiliations, humans must learn not to fear their naturalness and their products, not to allow themselves to be reduced to them, but to become aware of their humanity, of being a human among humans.

3.2. Powerlessness, Sleep, and the Destruction of Reason

With the current wars and the global shift to the right, there has also been an increased resurgence of anti-Humanist ideologies. Anti-Humanism prepared and further promoted the shift of political thought to the right. We deliberately speak here of the destruction of reason in order to emphasise the disruptive process. For it is very clear that our intellectual and moral development in Europe, after the terrible experiences of two world wars, was already much more advanced in its clear rejection of fascism and war. My generation was characterised by the experience of war and the hardships of the post-war period.

Even during the Cold War, within the framework of the policy of peaceful coexistence, there was always an endeavour on both sides to overcome the Cold War.

The most widely read book of the AI pioneer and social critic Joseph Weizenbaum (1976) is entitled *Computer Power and Human Reason. From Judgment to Calculation.* He wants to tell us that it is a dangerous misguided development to rely solely on the model truth with the spread of computers and the modelling method. Complex situations must always be assessed comprehensively, not just calculated. As Immanuel Kant pointed out, the ability to make judgements is the decisive ability for humans who emerge from their self-inflicted immaturity. Judgement presupposes reason.

The computer, even the particularly powerful AI systems, has no consciousness and no self-awareness and therefore no ability to judge the right and wrong of its behaviour. The model statements remain limited, as the specific human factors are not captured by the mathematical models.

Joseph Weizenbaum (2015) asks in another short essay: Where are the havens of reason? Much has already been destroyed, but there are still islands of reason. The author Daniela Dahn (2024) describes our current situation very clearly and vividly. She speaks of the “sleep of reason“.

We are deliberately talking here about a process of the destruction of reason. It is a process that has already taken place in Germany with the fall of the Weimar Republic and the rise of fascism. Since we have already experienced the process of the destruction of reason once before, we should also refer here to Georg Lukács‘ (1980/2021) *The Destruction of Reason*, in which he thoroughly analyses this process in connection with the rise of fascism in Germany. In a comparable manner, Erwin Eckert and Emil Fuchs (2002) described the end of the Weimar Republica as a look into the abyss.

The destruction of reason leads to a state in which rational, logical and critical thinking has been largely suppressed. Agnosticism is prevalent and thus academic knowledge is rejected, and the possibility of gaining objective truth is denied. Racism and anti-Semitism as well as other anti-Humanist ideologies, such as the identification

Date of Acceptance: 19 March 2025
Date of Publication: 21 March 2025

of humans and computers, humans and artificial intelligence, prevail. The ability to make self-determined judgements, to really assess reality and one‘s own decisions based on true knowledge, has been lost.

4. War is Made by Humans Against all Reason!

War is made by humans and must therefore also be prevented by humans and no longer recognised as a means of continuing politics.

But the very fact that every country has a military, maintains an army, already recognises that war is a legitimate means of continuing politics. Reasons must be found to justify high military expenditure and the arms race. A potential adversary is therefore always needed. It is quite demonstrable that it is often not the opponent who forces further armament, but those who are interested in a further arms race, who create an aggressive opponent. Such arguments are often based on the thesis: “There have always been wars, and there will always be wars, because they are part of human nature“. In this context, it is common to refer to the so-called “aggressive instinct“, to work in the field of biological behavioural research, for example the one by Konrad Lorenz. For me and the colleagues I have worked with on the problem of how biological, psychological and social aspects of humans are related, the remarks of Nobel Prize winner Salvador Luria on this problem were very important. Luria wrote:

> “Human behavior is certainly under partial biological control, but this does not mean that it is analogous to animal behavior. Cultural and social factors play the dominant role. Aggression in human society is due much less to biological imperatives than to sociological imperialisms – that is, to the organization of society itself. Theories that ascribe human strifes to biological factors can readily be used to explain and justify racial and national conflicts on pseudoscientific grounds and to imply that such conflicts cannot be prevented by education and social decision, but only by selecting supposedly superior genotypes. Such fatalistic ‘biologism‘ has no justification in serious biology. There is no reason to doubt that conflicts in human societies have their main source in the structure of these societies and in the accompanying super-structure of beliefs, myths, and prejudices“ (Luria 1973, 134-135).

When I read this text by this renowned biologist, I was very impressed, because in my opinion the mistake of seeing the causes of human conflicts and wars in the aggressive instinct instead of in societal structures and superstructures could not have been better presented. The reference to the base-superstructure dialectic made it clear that Luria was also guided by Marxist thinking in his socio-political considerations. The prevailing ideologies are an expression of the existing relations of organisation and production.

Christoph Seidler‘s (2021) statement that war is a work of culture and the associated conscious dissociation from the biologistic attitude of Sigmund Freud, the founder of psychoanalysis, are very important. Sigmund Freud‘s often-quoted letter to Albert Einstein “Why war?“ from 1932 ends with the words: “whatever makes for cultural development is working also against war“ (Freud 1932). This last sentence sounds hopeful and yet is misleading. For a long time, wars were explained in psychoanalysis with the human instinct for aggression. It is assumed that the death instinct becomes a destructive instinct when it is directed against objects. Culture is seen here as the opposite of nature. “Peace and war, however, are not in the nature of man, but are works of culture“ (Seidler 2021, 13; see also Fuchs-Kittowski, Fuchs-Kittowski, and Rosenthal 1983).

The understanding of the human being as a biological-psychological-social being is obviously an important basis for explaining the destruction of the self, the subjectivity and reason of human beings, as well as the decisive causes of wars. *Peace is the first human right, it is not guaranteed. That is the greatest humiliation of humanity.*

My generation was shaped by the fact that it was still living through German fascism, the end of the terrible Second World War with millions of deaths and enormous destruction, the very difficult post-war period, the gradual overcoming of spiritual and material hardship (Fuchs-Kittowski 2023). Above all, however, the experiences and warnings of humans who had to live through the horrors of two world wars must not be forgotten (Balzer 2023).

Humans are primarily social beings. They are neither animals nor computers. However, humans can behave like an animal and like a computer if they reduce themselves and their fellow human beings to these. This is particularly the case when preparing for and waging war. If we want to prevent war and create conditions for lasting peace, it is very important to understand the nature of human beings in all their complexity, as biological, psychosocial and social beings (Wessel 2021).

To grasp and understand this highly complex dynamic process, the underlying structures and processes, even at a first approximation, requires intensive disciplinary, interdisciplinary and transdisciplinary research work that lies in the border areas between physics, chemistry and biology, psychology and sociology, between computers (software) and the human mind and between the individual and society. The difficulties of gaining knowledge in these border areas are expressed in terms such as physicalism, the mechanism-vitalism dispute, the body-mind problem, psychologism, sociologism, technocracy and sociocracy, among others.

To this day, there is an intense struggle for a neither reductionist nor dualist solution to the relationship between physics, chemistry, and biology as well as the mind-body problem. The relationship between self and being, individual and society has been and continues to be the subject of intense debate. In the discussion of the interrelationship between the individual and society, two basic lines have emerged in the history of philosophy (Fuchs-Kittowski 2012):

- On the one hand, there is the line of *Hobbes – Stirner – Nietzsche – Heidegger – postmodernism*, in which the self is seen as something conclusive and autonomous.
- On the other hand, there is the alternative view, the line *Aristotle – Kant – Hegel – Marx.* These are the *autologies*[2] that see the individual as a member of society who can consciously shape it.

Postmodernism, due to its attack on the ideals of the Enlightenment (Neiman 2024), such as objective truth, progress and universal principles, can be seen as a continuation of the first line. In contrast, the various modern theories of development, the autologies (Wahl 2012), which are based on the theory of self-organisation, tie in with the second line.

On the basis of the theories of self-organisation developed within the natural sciences (Prigogine and Stengers 2017) and cybernetics (von Foerster and Zopf 1962), concepts of development that were obscured by preformist or teleological thinking were overcome and genuine developmental thinking was made possible again. This gives these system theories, which are important for computer science and

[2] We have summarised the various theories of self-organisation under the term “autologies“.

Date of Acceptance: 19 March 2025
Date of Publication: 21 March 2025

information system design, a special philosophical significance beyond their technical value, which is particularly effective in overcoming dehumanising ideologies.

The Vienna Circle of Computer Scientists (see Fleissner et al. 1997) and the working group “Emergent Systems, Information and Society" (*Emergente Systeme, Information und Gesellschaft*) of the Leibniz Society (*Leibniz-Sozietät*), a series of works on self-organisation with the emergence of information (Fuchs-Kittowski & Rosenthal 1998, Hofkirchner 2013), on the methodology of information system design (Fuchs-Kittowski 2025) and on the societal aspects of computer science (Fuchs-Kittowski and Stary 2024, Brödner and Fuchs-Kittowski 2020, Hofkirchner 2022, Fuchs 2023) have been produced, which have helped to advance the autological line of thought.

The great humiliations to humanity caused by revolutionary scientific findings, as formulated and supplemented by Freud, are only perceived as affronts if we hold on to a reductionist view of the world. This means not understanding the bio-psycho-social unity of the human being, the qualitative uniqueness of every form of movement of matter. The human being as the pinnacle of evolution is a much more optimistic image of humans than that of the human being as the centre of the universe. The human being also rises above the ape. Of course, instincts also play a role in his behaviour, but for humans there is another inner determination that restricts instinctive behaviour, the free will which is based on conscience. Humans can behave like animals, but they do not have to, due to conditions that restrict animal behaviour. It is important to realise that the possibilities for human beings to behave barbarically even go beyond those of animals. Friedrich Dieckmann (2024) made this argument in an article on questions of war and peace. Animals only kill in order to survive and to get the food they need. Beyond that, they do not kill. The large dog does not bite if the small dog lies on its back in front of it. There is a bite inhibition. Humans do not have such barriers. The murderous ideology utilises this greater leeway to break the inner determination. As Luria already pointed out, it is therefore necessary to eliminate the societal structures that give rise to such murderous ideologies.

Ernst Bloch (1970, 356) worked out that technology involves aspects of the shining ahead (*Vorschein*) of the not-yet-being. Technology is part of our social, societal and cultural development. It should serve our metabolism with nature, the adaptation and organisation of our life processes. Technology produces systems that are useful to humans in a way that does not exist in nature. Our time is increasingly characterised by the development of science and technology. This is why we speak of scientific and technological revolutions taking place. The effects of this revolution on nature and humankind are ambivalent. If the enormous development of the productive forces is not to turn into destructive forces, the scientific and technological progress must also be accompanied by social and moral progress. *To this end, technicism as a widespread anti-humanist ideology must be overcome.*

The fourth scientific and technological revolution also harbours potentials for conflict, which, ideologically supported by technicism and other anti-humanist ideologies, could lead to a major war. On the other hand, there are the ideas of enlightenment and a deepened, concrete humanism.

The current digital capitalism in its phase of platform capitalism is creating monopolies of unprecedented size and thus an accumulation of power among individuals in the economy who are also influencing politics. When the richest man in the world, Elon Musk, was appointed to Donald Trump‘s cabinet, the ZDF news anchor spoke of an unprecedentedly open and shameless intertwining of capital and politics. The richest man in the world is demanding power over the whole world. His motto is: I already have the billions and own social media, and want even more!

Wars are not inevitable. They can be banished from the life of society. However, this means that we must not allow ourselves to be driven into further armament spirals. Disarmament and arms control are necessary.

Joseph Weizenbaum formulated the minimal moral imperative of computer scientists: "*Don't use computers to do what people ought not to do*" (in: Fuchs-Kittowski 1980, 279). Even this minimal moral imperative, which the representatives of the two opposing blocs, different religions and world views from East and West, were able to agree on during the Cold War in the International Federation for Information Processing (IFIP), was and is very difficult to comply with in the context of the ongoing arms build-up, the use of armed drones, AI-powered warfare and automated killing (see Fuchs-Kitowski 2016). This makes international treaties on disarmament and the control of modern weapons systems all the more urgent.

Humans can behave like animals but they don't have to. Humans can behave like an automaton, but they don't have to. This is because there is an additional determination that limits human behaviour, *the human will.*

This will, guided by conscience, must first be broken if a person is to become a fanatic for war. During the Nazi time, attempts to instil such thought into children already started in school. It only took 14 days after I started school for the class teacher to come in after the second bell had rung and we had to stand up and salute with "Heil Hitler". She then went to the cupboard and took out the cane, with which those who had spoken after the first bell were given six strokes on the hand or six strokes on the bottom. That's how the lesson began. This was clearly a humiliating drill.

In second grade, the German teacher would slap me on the back during dictation if he spotted a mistake. This really hurt my back! At the time of this second school year, the bombing raids on Berlin, especially on Tempelhof, Mariendorf and Marienfelde, where we lived, had increased massively. The rubbish collection was carried out by Russian prisoners of war. I noticed that the prisoners always looked in the rubbish bin first to see if they could find anything edible. My grandfather had the idea that I should put some bread in the bin. A classmate observed this and confronted me. „How can you do something like that? They should starve to death!". A child of 8 years old was already so angry that he said something like that.

We used to play war on the premises of a Siemens factory next to our street, where one of the aims was to drop as dead as possible, preferably into a pit. On the other hand, I was lucky that my grandfather took the risk of telling me about the anti-fascist struggle of our family and the Hagen family, with whom we lived together in Marienfelde, in order to save me from being completely incited.

Heinz Hagen, my foster father, had been very active as a Quaker in helping Jewish citizens to escape (Sandvoß 2014, Voigt 2022). He was drafted into a penal company for this. Here he experienced monstrous things. He wrote home to his wife shortly before his death:

> "Field post letter dated 25 October 1943 to Mrs Th. Hagen.
> What we have experienced in recent times is so horrific that you have to be ashamed to recount it, you have to be ashamed to be German. I will write what I have experienced objectively and without any exaggeration. I take full responsibility for every single word.
>
> In one of my last letters I wrote to you about the complete incineration of the village of Mielinicza, I wrote to you about the children who were burnt to death there. On 2 October at about 1 a.m., we marched towards the village of Diablovichi on the Lunimice/Baranovichi road. It was a cold night. Towards

Date of Acceptance: 19 March 2025
Date of Publication: 21 March 2025

morning it was raining. The stars were bright and twinkling. In the east, the morning star had just risen and glittered like a bright eye with wide rays. It was so big and bright. We talked about the stars and in a premonition of terrible things I compared the shining star with the eye of conscience. As it shrouded itself in a light cloud, it looked as if it were weeping over devilish malice and wickedness. Around 4 o'clock, it was dawning, we arrived at our base in D.

The village was asleep. It was surrounded towards the forest and the railway embankment. We marched in line along the road. I and 3 comrades were ordered to move to a house on the right (the first one on the road). The people were asleep. When it was light, they woke up from our conversation and came out of the house. They knew immediately what was going on, better than we did. It was a family, husband (mid-30s), wife (late 20s), heavily pregnant, and 3 small children. The woman immediately cried, held her hands folded and said, 'Don't shoot! don't shoot!' The man let the horses out of the stable, then swung over the fence and disappeared. Erich and I let him go, the other two stood in front of us. One of them then searched the whole house for the man but didn't report it later because he was afraid of being dragged in himself.

Around 6 o'clock, a group of people including the head of the Security Service (SD), the cook from the Reichsbahn, who takes part in all these actions for fun, Corporal Siegfried Kreuzenbach from Essen, Corporal Rankowitz and about a dozen soldiers in their wake approached the house. They went into the house with their machine guns. There were a few muffled bangs. Corporal Kreuzenbach shot the baby in the face with five shots and said: 'He's not alive!'. In the neighbouring house, the farmer greeted the German soldiers with his cap drawn, seconds later he lay shot dead on the threshold of his house. The whole village, 600 people, 80% of them women, many pregnant and children, were shot. Apart from the man from the SD and the cook from the Reichsbahn, almost all the corporals and sergeants took part voluntarily, openly expressing their pleasure in this business. When various comrades openly expressed their disgust, they were threatened with being reported and told that it would be militarily necessary to liquidate all the villages in Ukraine and Belarus so that the Russians would only find a desert. In order to make any later proof of the incident impossible, all villages were completely incinerated and all supplies were taken away. Our column consisted of over 300 wagons.

We, a few military comrades, went from house to house and looked at the horrific images of this infanticide in order to tell the German people right now that they should not complain if only they were completely exterminated. What we saw is eternally unforgettable.

The SD man, who had the rank of chief troop leader, went into the houses with a lit cigarette. He put the cigarette on the table, did his job, looked around for water, rinsed his fingers, put the cigarette back in his mouth and went to the next house. Corporal Kreuzenbach said: 'Well, I've certainly done my duty today. I emptied two magazines (50 rounds)'. He was very proud of it, as were the other sergeants and corporals"[3].

"This monstrous dehumanisation of the Wehrmacht and even the SS is incomprehensible. We are stunned by this breach of civilisation" (Seidler 2021, 71).

[3] Source: Archive Klaus Fuchs-Kittowski, Gedenkstätte Deutscher Widerstand.

“He was very proud of it, as were the other sergeants and corporals“. Can such inhuman, inhumane, cruel behaviour be explained at all?

Based on the findings and methods of psychoanalysis and group analysis, Christoph Seidler (2021) attempts to find out what makes humans willing not only to be enthusiastic about war, but also to allow themselves to be incited to such an extent that they even destroy their opponents more brutally than a predator.

This is possible because the self, the subject, has been completely destroyed. “The soldier matrix, the hunter-prey constellation, the disintegration of the self and the dehumanising disintegration of the enemy have mobilised the murderous potential and maintain it at great expense“ (Seidler 2021, 69). A high point of the soldier matrix was the Wannsee Conference. In order to be able to commit these brutal war crimes, as can be seen from the letter just cited, even with joy, there is an additional reinforcement, as the psychoanalyst‘s explanations show. “A vicious circle as the flywheel of war“ (Seidler 2021, 74) leads to total dehumanisation.

It took a great deal of effort to gradually overcome this evil spirit among the German people. Today, unfortunately, it is once again necessary for all Humanists to together struggle intensively against right-wing radicalism and neo-fascism, racism and anti-Semitism, against all forms of anti-humanism.

Manfred Eigen and Ruthild Winkler (1981, 257) formulate an important thought on the dangers of anti-Humanist ideologies: “The information stored in World 3 is not automatically protected from a misuse that could result in the self-destruction of life. The survival of mankind is not guaranteed by material laws of any kind, even if the premises for that survival continue to exist. We therefore repeat: Our ethic must reflect the needs of mankind. It has to guarantee the survival of mankind without curtailing excessively the freedom of the individual. Such an ethic cannot be derived from any material laws that lie below the organizational level of man“.

5. Ideologies and the Destruction of Reason

5.1. Is There Only Scientific and Technological Progress or is There Also Social and Moral Progress?

The theoretical physicist Pascual Jordan, one of the co-founders of quantum mechanics and quantum theory, explained in his book *The Failed Uprising* (*Der gescheiterte Aufstand*): “Technology makes our lives more mobile, but also more dangerous – that says it all. In contrast to the moral progress of humankind – an invention of ideologues – the progress of technology is a reality“ (Jordan 1956, 150). In this essay, Jordan claims that all ideas about the possibility of shaping society are an invention of ideologues and that all revolutions were therefore a mistake. He therefore also opposes the civil rights of liberty, equality, and fraternity supported by the French Revolution.

The actual aim of the paper is to formulate a statement against the appeal of the Göttingen Eighteen. In doing so, he explicitly turns against his teacher Max Born, his colleagues Werner Heisenberg, Carl Friedrich von Weizsäcker and the other signatories of the appeal against the nuclear armament of Germany.

Jordan could only defend his absolute nihilism on the basis of an equally extreme positivism, which has now been philosophically overcome. Contrary to the original positivist conception, he allows for religious ideas. Thus, in order to reject any social and ethical progress, he can invoke the most dogmatic interpretation of the fall of man.

Also Sebastian Kleinschmidt argues that there can be no real societal progress because of the fall of man. He writes: “The dogma of original sin supports pessimistic

Date of Acceptance: 19 March 2025
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anthropology. It says nothing other than that the human being has an inherent root of evil, that it is open to evil, indeed, that it is inherently dangerous“ (Kleinschmidt 2023, 65). This means that any attempt to shape societal processes in a positive way, so that at least wars, as the most blatant failure to live together in a humane way, are rejected, are presented as hubris, as an overestimation of human abilities. Kleinschmidt (2023, 56-57) even opposes Ernst Bloch‘s interpretation, which in my opinion is correct, that the apple from the tree of knowledge gives humans the capacity for knowledge and thus also the capacity for guilt. Our entire jurisprudence is based on this principle.

5.2. AI Research Requires a Neither Dualistic nor Reductionist Solution to the Mind-Body-Problem

The human mind is, on the one hand, a fairly easy phenomenon to demonstrate and, on the other, one of the most difficult to explain. On the one hand, the mind is a trivial matter, because everyone has it and intuitively knows what it means. On the other hand, the mind is the most mysterious thing in our universe. Generations of individual academics and philosophers have endeavoured to explain this phenomenon without much success. The main difficulty lies in the fact that our mind is not simply a part of our body, like the liver, for example. The objects researched by natural science exist in space and time. As Hegel already knew, spirit only exists in time, or more precisely, in simultaneity.

Philosophy has long been preoccupied with the question: What is the mind? In the course of its long history, the various philosophical schools of thought have discussed all possible variants of the relationship between matter and mind. In a nutshell, they can be characterised as follows:

- Only God can mediate between the two (Descartes).
- Matter and mind cannot interact, they are parallel worlds (Leibniz)
- Matter is a product of the mind (Hegel).
- Matter is a pure conception of the mind (Berkeley).
- Spirit is a product of matter (Holbach).
- Mind and matter form a dialectical unity, whereby matter has primacy and min arises from matter in motion (Marx).
- Mind and matter form a unity, with mind having primacy; even if consciousness only emerges clearly in humans, the atoms already show traces of it (Teilhard de Chardin).

From today‘s perspective, the concentration of the philosophical discussion on the relationship between matter and mind appears to be a one-sided approach that only marginally allows for further questions, such as the mode of existence of the mind. Advances in psychology and, more recently, in neurology and computer science, particularly in the field of artificial intelligence (AI), have led to the phenomenon of the mind also becoming the subject of individual scientific research. Different positions have also emerged here. These include, very briefly summarised, the following ones:

- Mind and matter are two or more levels of the description of a whole, like the levels of hardware and software (functionalism, e.g. Jerry A. Fodor). This is the basic attitude of the cognitivisits in AI research.
- Mind and matter are identical. Rational thinking is a kind of natural causality (e.g. Patricia Churchland's neurophilosophy). This is the basic attitude of many connectionists in AI research.

- Mind is not opposed to matter, but is a self-organising quality. It coordinates the spatial and temporal structure of matter. This position is held by many who use the theory of self-organisation based on Erich Jantsch‘s concept.
- Mind as a phenomenon of being in language in the network of social and linguistic couplings is not something that is located in the brain or anywhere else. Consciousness and mind belong to the realm of social linkages, where their dynamics come into play. This is the position advocated by Humberto Maturana and Francisco Varela.
- Mind is not a part of the human being, but in fact an aspect of the whole human being. Max Delbrück advocates this position.
- Mind is the creation of an indissoluble bond between neuronal patterns and an external object. Francis Crick holds this position based on the analysis of the latest research results of neurophysiology and connectionist AI research.
- The mind is characterised by its specific performance, through which past experiences are preserved for a longer period of time without mechanical storage, recalled and combined into new thought patterns, predictions or generalisations and, above all, new meanings and values are created (see Luria 1973; Fuchs-Kittowski 1990, 1991; Fuchs-Kittowski and Stary 2024).

The pros and cons of the various conceptions cannot be discussed here. However, it should become clear that AI research can make a contribution to scientific research into the mind within the framework of the cognitive sciences, but will certainly not be able to do so if AI research continues to be based on the concept of dualism or reductionism, which is widely considered to have been overcome in philosophies of mind and in the natural sciences.

Marvin Minsky, the founder and long-time director of the Artificial Intelligence Laboratory at the Massachusetts Institute of Technology (MIT), says: “the mind is many hundreds of different kinds of computers“ (Minsky and Mishlove 2020). Under the impression of the successes in the use of artificial neural networks, Nobel Prize winner Francis Crick writes that the soul is a “vast assembly of nerve cells“ (Crick 1994, 3).

In fact, life arises from non-living matter and mind from mindless matter. Life and mind are products of an evolution in which qualitatively new forms of movement of matter with new properties arise through higher complexity or organisation and the associated emergence.

The philosopher Daniel Dennett (2005) also speaks of emergence, but describes all philosophers and natural scientists who see a specific quality in the mental as dualists, and since dualism has been refuted, as sweet dreamers. He writes: “there is now widespread agreement among scientists and philosophers that dualism is – must be – simply false: we are each made of mindless robots and nothing else, no non-physical, nonrobotic ingredients at all“ (Dennett 2005, 3).

If dualism is false, then naturalistic reductionism is not correct. It calls for a neither dualistic nor reductionistic solution to the mind-body problem. Mind cannot be identified with information and information cannot be reduced to its syntactic structure at any level of the organisation of matter: genetic information cannot be reduced to its syntactic carrier. DNA and mental processes cannot be reduced to their syntactic carrier, the connectivity of neurons, or neuronal networks. The various non-dualistic and non-reductionist concepts formulated by, for example, from a scientific point of view, from Erich Jantsch, Huberto Maturana, Max Delbrück, and our evolutionary stage concept of information show ways to a solution that is neither dualistic nor reductionist.

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If humans are denied mind, consciousness, and subjectivity as specific qualities, it is no longer difficult to attribute creative achievements to computers, as is increasingly the case in contemporary AI. If the existence of the mental is denied in this way in the name of modern science, this makes a dangerous contribution to the development of the mind of a mindless age.

In the confrontation with this reductionism, which has intensified again with the current euphoria in connection with the development of ChatGPT and DeepSeek, the criticism of this reductionism as an ideological position, the reduction of humans to the computer, becomes very important.

The discussion about the nature of the human mind becomes important, usually starting with the philosophical mind-body problem or psycho-physical problem. In order to determine the similarities and differences between automata and humans, between recognising language and understanding language, between a self-acting system and a consciously acting human being, it must indeed be possible to develop a concept of the phenomena of life and in particular of the human mind that is neither mechanistic nor physicalistic nor dualistic.

When developing models and theories at the interface between physics, chemistry and biology, one needs to give particular attention to the phenomena of information creation and value formation. This applies equally to the creation of models and theories at the interface between computers/software and the human mind, as well as between computer-supported information systems and creative, evolving social organisations.

The evolutionary stage concept of information can be used to show that the highest stage is the development of human self-awareness, the ability to make judgements and self-assessments.

6. A World Without War is Necessary and Possible: A Real Utopia

The policy of peaceful coexistence on both sides saved us from a hot war and ultimately led to the end of the Cold War and a long period of peace in Europe. This was no utopia! It was based on a policy of understanding, dialogue, and the avoidance of confrontation.

One of the frightening experiences of this current time of war, with all the suffering already caused to humans, the destruction and death of civilians and soldiers, is that at the same time, the principles of the peace movement are being increasingly disregarded, portrayed as naive and out of date, when from our point of view the opposite should be the case. *This is very clearly another destruction of reason!*

In Friedrich Schiller's *William Tell*, there is the following passage: "The very meekest cannot rest in quiet, Unless it suits with his ill neighbor's humor" (Schiller 1804). This word is often quoted today to emphasise that even peaceful people can be drawn into warlike conflicts against their will by their malicious environment. Therefore, humans who are attacked and unjustly threatened with death may defend themselves with weapons. That is international law.

But then you have to pause and assess the complex situation – not just calculate it. As Joseph Weizenbaum (1976) pointed out in his book *Computer Power and Human Reason: From Judgment to Calculation*, the actual human factors are not included in the calculation models. If the soldiers' will to fight and the suffering of the population are included in the assessment of the situation, it is very likely that the conclusion will be that a ceasefire and peace negotiations must be reached.

It is important to realise that the rational pacifism we advocate, which assumes that since the existence of nuclear weapons of mass destruction, humanity can destroy

itself completely, goes beyond traditional pacifism as an ethical stance that rejects war. The aim is to convince humans that wars are not lawful, but are human-made and can therefore be abolished by reasonable humans.

As a Humanist, you are forced from the outset to oppose war, racism, and neo-fascism with all your might. There is no need to wait for academic arguments. However, it is good for rational pacifism if academically grounded arguments are also developed and disseminated to support the Humanist stance. In the 1980s, the appeal of computer scientists based on academic arguments became important for the peace movement: “Software must be tested. The software of early warning systems is insufficiently tested. A world war by chance is becoming more and more likely!“ The dangers mentioned here still apply, intensified by the use of armed drones, by automated killing so that the dream does not go away. Humans must be shaken awake again in time.

The development of computer science is closely linked to the creation of important productive forces, but also enormous destructive forces. Just think of the computer development by John von Neumann, which was also used for the development of the atomic bomb and Los Alamos, up to the development of cyber weapon systems in our time, combat robots and armed drones, whose control and prohibition we as computer scientists should demand.

The special responsibility of computer scientists in the struggle against armament, to ensure a life in peace, was first recognised with the founding of the Computer Professionals for Social Responsibility movement (http://cpsr.org/) in the USA, initiated by Joseph Weizenbaum and Terry Winograd. This was followed by the founding of the Forum of Computer Scientists for Peace and Social Responsibility (Forum InformatikerInnen für Frieden und gesellschaftliche Verantwortung, FIfF) in Germany. At the FifF founding event, Christiane Floyd (1985) gave a talk that asked: Where are the limits of responsible computer use? FIfF’s journal *FifF-Kommunikation* has under the leadership of Stefan Hügel has become an important journal for the discussion of the social problems of IT and its responsibility for securing peace. Hans-Jörg Kreowski has been particularly effective in the public sphere with the FifF working group on the ban on armed drones and other initiatives.

We cannot expect all weapons to be abolished in the current global situation. What we can expect and must demand, however, is a commitment to comprehensive disarmament, a ban on nuclear weapons and armed drones and comprehensive control of disarmament and existing weapons stocks. The creation of an effective control system to monitor compliance with arms limitations is a major challenge for all sciences. Failure to create such a control system would be an insult to human intellect.

7. Responsibility for a Humane Development of Technology and Society

Our time is increasingly characterised by the development of science and technology. This is why we speak of scientific and technological revolutions taking place. Since the end of the 1960s at the latest, it has been clear that a particular feature of the scientisation of technology is linked to the development and use of computer-aided information systems. A decisive step was the decentralised use of computers, which began in the 1980s, and their increasingly strong local and global networking. Humans began to speak of an information society replacing the industrial society and then also of a knowledge society. There is a decisive basis for this development.

Software development accelerates the objectification of the intellect. The objectification of the intellect on machine-processable syntactic structures facilitates the socialisation of knowledge. This is the basis for the development of individuality.

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As a result, a profound (creative) conflict develops between the individual and society. The more intellectual externalisation or objectification increases and thus the intellectual reproduction of objectified, social intellectual processes becomes less and less necessary and possible, the more human individuality is set free and itself becomes an essential factor in the development of humanity. However, this development of individuality, of humans‘ creative abilities in and for the community, through the objectification of knowledge in software, through the associated socialisation of individual activities, has the decisive prerequisite that access to the socialised activities is also possible for everyone and that, at the same time as the processing of (syntactic) information, a comprehensive and profound stimulation of human creativity takes place.

Hardly any other term to characterise the special nature of our current social development in digital capitalism has become as generally accepted as the information or knowledge society. This term emphasises various phenomena of societal and technological change processes. At their core, they affect the competitive conditions of companies. Information and knowledge are becoming a central resource. Bottlenecks in the labour market, the growth in knowledge-intensive services and other factors point to this. However, the rapid development of global digital networks, the Internet, points to the importance of the organisation and management of knowledge as a production factor.

Whatever term is chosen to characterise the specifics of our current societal situation, it is intended to express the close interweaving of scientific and technological and societal development. The impact of science and technology on our realms of work and life gives rise to a new dimension of individual and social responsibility. Society, and in particular the specialists who are driving the development of these sciences and technologies, bear a great responsibility: to ensure that this development in technology and society is humane.

When we talk here about our responsibility for a humane society, this is based on the great hope that there will not only be scientific and technological progress, but also social and societal progress and the ethical progress associated with it.

If we talk about humans as the subject of all development, then it is not just about them as controllers, as programmers or operators of the computer, but as the real masters and designers of these processes. As the guardian of fully automated production processes and in direct interaction with the industrial robot in hybrid automation, situations arise that certainly need to be thought through further. It is about the relationship between the autonomous, self-aware and independently active human being and the “self-acting“ machine.

Will “self-acting“ machines backfire on us? Will the “self-acting“ automaton, like the combat drones, be used to perfect killing from even greater distances and thus lower the threshold to the next world war, a nuclear and cyberwar, or will it be possible to avert such dangers by disarming and banning these unmanned armed missiles? In view of the growing danger of nuclear and cyber warfare, there has so far been no strong protest from the academic community, so unfortunately, we must currently speak of intellectual and moral regression rather than progress. Just like scientific and technological progress, social progress, and even less so moral and ethical progress, comes about by itself and has to be hard-won. There are always various development options: either scientific and technological progress can be combined with social and moral progress, or humanity will destroy itself through war and the destruction of its natural resources.

Computer scientists have a responsibility to contribute to this struggle for the progressive development of society, social justice and peace through their work. The Imperative of Automation developed by Werner Kriesel and Ulrich Hofmann (2020), which is reformulated here in a modified form, also serves this purpose:

> *Always automate in such a way that the chosen automation strategy follows the maxims of concrete Humanism*:

- Free humans from strenuous and monotonous physical and mental routine work that can be formalised.
- Increase the effectiveness and productivity of human activity and at the same time the opportunities for personal development in the work process.
- Advocate a humane use of the increase in effectiveness and productivity gained through automation.
- Prevent inhumane effects of automation in all areas of our individual, social and societal lives.
- Use automation to support the ecological, economic, and social dimensions of sustainable development.
- Guarantee individual, social and international human rights through automation, in particular the right to live in peace as the first human right.

If such ethical principles are formulated and presented to software developers and information system designers, those responsible for automation in all areas of our lives, as a binding orientation, then it is of course also important to recognise that the necessary knowledge, technology development and the use of these technologies take place within the framework of very specific social and societal conditions. The knowledge and the automated systems that are developed are introduced into social systems that often run counter to the required ethical principles, indeed lead to the opposite.

This must not, as Carl Friedrich von Weizäcker (2006) rightly emphasises in his book Die *Tragweite der Wissenschaft* (*The Scope of Science*), lead to the widespread but false thesis among scientists and engineers that they bear no responsibility for the consequences of the application of their knowledge, of the technical systems they have developed. Only politicians and the military would then be responsible for the application. It must be clearly stated that the existence of societal structures, e.g. the military-industrial complex, does not absolve scientists, system designers, and software developers of their responsibility. Everyone is called upon to overcome the societal structures that repeatedly lead to war, which do not prevent, but rather promote, the productive forces we have developed from turning into destructive forces. Therefore, we still need a vision, a grasp of the horizon of the real possibilities of development, as Ernst Bloch says.

In this sense, shining ahead (*Vorschein*) is the vision of a realisable possibility, a real utopia: to really be a human being among human beings in a genuine communication society.

On the basis of intensive networking, increased interaction between humans, supported by global socio-technological information and communication systems, it will be possible to develop a knowledge society and, building on this, a solidarity society with a strong communication structure that intensifies social traditions, promotes the emergence of new information, the creation of new knowledge and intensively communicates and accepts the formation of new, deeply effective values.

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We need a society that is able to fully develop and utilise humans‘ creativity, which is based on the development of their intelligence and the condition of solidarity. We need a society in which humans who have become aware of their humanity – of being human beings among human beings – commit themselves with all their strength to realising the vision of a fairer world, of a world without war. Such a society is a concrete utopia – a realisable possibility!

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Date of Publication: 21 March 2025

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Prof. Dr. Phil. Habil. Klaus Fuchs-Kittowski was a Professor of Information Processing at Humboldt University in Berlin. He was born on 31 December 1934 in Berlin. He studied philosophy in Leipzig and undertook postgraduate training in biochemistry, biology, the mathematical foundations of cybernetics and philosophy of science at Humboldt University. He earned a PhD in philosophy on the problem of determinism and cybernetics in molecular biology. In 1964 he was among the founders of the University's Computer Center and, in 1968, of its Department of Economical Cybernetics and Operation Research, which later became the Department for Theory and Organization of Science. He was vice Director of the Department and Head of the Division of Information System Design and Automated Information Processing. In 1972, he was awarded the Rudolf Virchow Prize for medical research. He collaborated with the IIASA-group on *Modelling of Healthcare Systems* and on *Data-Communication*. He became a member of IFIP/TC9 (International Federation of Information Processing, Technical Committee 9 – Interaction of Computer and Society). For six years he was Chairman of the "Computer and Work" Working Group 1 of the IFIP/TC9. For this work, he received the IFIP Silver Core. In 1989, Fuchs-Kittowski had the opportunity of working on a project on *Evolution of Information Structures* led by Peter Fleissner at the Vienna University of Technology. Fuchs-Kittowski was Visiting Professor at the Department of Informatics at the University of Hamburg and Visiting Professor at the Department of Economical Informatics of the Johannes Kepler University in Linz. He taught at the University of Applied Sciences (HTW) Berlin in the field of Environmental Informatics and Society.

Date of Acceptance: 19 March 2025
Date of Publication: 21 March 2025