In June 2018, Henry Kissinger published an article in *The Atlantic* titled “How the Enlightenment Ends.” At first glance, the article seems to suggest that the Enlightenment, the “Age of Reason,” has been put to an end by artificial intelligence. Machines that have the capacity for analysis and reasoning are overtaking human cognitive capacity. Technology that is rooted in Enlightenment thought is superseding the philosophy that is its fundamental principle. In view of this end of the Enlightenment, Kissinger proposes that it is necessary to look for a new philosophy: “The Enlightenment started with essentially philosophical insights spread by a new technology. Our period is moving in the opposite direction. It has generated a potentially dominating technology in search of a guiding philosophy.”

However, we must first of all ask: Why does the increasing capacity of machines necessarily mean the end of the Enlightenment? And why does it lead the former US Secretary of State, at the end of his article, to call for the US to prioritize artificial intelligence research as a matter of immediate national concern?

If we begin with Kissinger’s title, “How the Enlightenment Ends,” we might ask how an “unfinished project” (in the words of Jürgen Habermas) such as the Enlightenment can be finished at all. Or has the China expert now joined the anti-Enlightenment tradition of Giambattista Vico, Johann Gottfried von Herder, Edmund Burke, Thomas Carlyle, Hippolyte Taine, Ernest Renan, Benedetto Croce, Friedrich Meinecke, Oswald Spengler, sometimes Nietzsche, and, more recently, Nick Land, another China expert? What follows is my response to Kissinger’s article; it can also be read as a continuation of two essays I published previously in *e-flux journal*, “On the Unhappy Consciousness of Neoreactionaries” and “Cosmotechnics as Cosmopolitics.”

1. The “Decisive Mistakes” of “the ‘White’ Peoples”

Happy progressivists have followed the emanation of the Enlightenment to its end and found that, in fact, the light leads to total darkness. The end comes as a huge surprise: the void. Are Kissinger’s words not witness to this end as the abyss of humanity? But when the Secretary of State asks computer scientists to understand the history of philosophy, he does so without specifying which history and which philosophy. Kissinger describes the suffering that ensues when the high point of Western civilization has passed; Oswald Spengler called this the “decline” or “downfall” (*Untergang*) of the West. Similarities between the ideas of
Synchronization of Histories

_Homo deus_

Intelligence explosion...

global axis of time
Kissinger and Spengler are far from coincidental, not least because the latter was the subject of the former’s honors thesis at Harvard. Titled “The Meaning of History: Reflections on Spengler, Toynbee, and Kant,” the thesis focused on determinism and freedom in history, following from Spengler’s description of history as an organic process. As Kissinger wrote: “Life is suffering, birth involves death. Transitoriness is the fate of existence. No civilization has yet been permanent, no longing completely fulfilled. This is necessity, the fatedness of history, the dilemma of mortality.”

The Enlightenment is no exception; it is only a transition towards the destiny of the West. A new philosophy becomes necessary at the end of this transition. However, it is difficult to identify what this philosophy might be due to the rapid transformation of geopolitics in the twenty-first century, driven by several remarkable events such as 9/11, which revealed the vulnerability of the West, and the rise of China, which is silently reconfiguring the world order through its development plans in places like Africa, Latin America, and the South Pacific.

In his article, Kissinger is right when he says that Enlightenment philosophy was spread – or more precisely, universalized – by modern technology. However, he fails to mention that the Enlightenment was not simply an intellectual movement promoting reason and rationality, but also a fundamentally political movement. Navigational and military technology allowed European powers to colonize the world, leading to what we now call globalization. We have been taught that the Enlightenment as a whole aimed to fully realize humanity and universal values by fighting superstition (not necessarily religion), and that it was through science and technology that this battle was supposed to be won. In addition to creating new nautical and cartographic tools, the Enlightenment was also itself a process of orientation that situated the West as the center of this transformation, the source of its universalization.

Even as modern technology spreads Enlightenment thought, its own process of self-realization leads to self-negation: the dialectic of Enlightenment from a geopolitical point of view. In his short 1931 book *Man and Technics*, Oswald Spengler argued that the West was making a huge mistake by exporting its technology:

> At the close of last century, the blind will-to-power began to make its decisive mistakes. Instead of keeping strictly to itself the technical knowledge that constituted their greatest asset, the “white” peoples complacently offered it to all the world, in every *Hochschule*, verbally and on paper, and the astonished homage of Indians and Japanese delighted them.⁶

As a result, continues Spengler, the Japanese became “technicians of the first rank, and in their [1904–5] war against Russia they revealed a technical superiority from which their teachers were able to learn many lessons.”⁷ Japan exposed the dilemma of technological globalization: on one hand, the spread of technology constructs a global axis of time though which European modernity becomes the synchronizing metric of all civilizations; on the other, the same spread frees modern science and technology from being the exclusive asset of European modernity, rendering the West vulnerable to global competition. As Hegel pointed out in *The Phenomenology of Spirit*, Enlightenment faith replaces religious faith without realizing itself to be also only a faith. In this way, Enlightenment thinking led us down a long road to globalization, all the while being defeated by its own negation. This would be a perfect postcolonial critique of the West; however, the story is not so simple.

### 2. The Constitution of the Global Axis of Time and its Apocalyptic End

Kissinger is wrong – the Enlightenment has not ended. Indeed, technology that is used for surveillance can also facilitate freedom of speech, and vice versa. However, let’s step outside of this anthropological and utilitarian reading of technology and take modern technology as constituting specific forms of knowledge and rationality. Modern technology – the support structure of Enlightenment philosophy – has become its own philosophy. Just as Marshall McLuhan stated that “the medium is the message,” so has the universalizing force of technology become the political project of the Enlightenment. As technology assumes and even performs the role of Enlightenment thinking, the medium ceases to be the carrier of meaning and instead becomes meaning itself – the knowledge through which progress is assured. After long celebrating democracy as an unshakeable universal Western value, Donald Trump’s victory seems to have dissolved its hegemony into comedy. Suddenly, American democracy appears no different from bad populism. Especially when the leader of the Republican Party publicly declares his admiration for Kim Jong-un’s dictatorship, it can be tempting to agree with Kissinger that the period of Enlightenment thinking, along with the republicanism to which Kant aspired, has come to a close.

But we cannot be satisfied with such a naïve caricature of the Enlightenment. It is unfair
Bifurcation of Future

Homo deus
Intelligence explosion
...

global axis of time
to claim that writers such as Voltaire insisted only on the superior value of the West without paying attention to cultural differences; for instance, Voltaire also praised the greatness of China’s four-thousand-year-old culture, as well as its emperor, who was an expert in astronomy.\(^9\) It seems astonishing, but Johann Gottfried von Herder turned such interest into a weapon against Voltaire himself, accusing the Frenchman of a lack of sensitivity to cultural differences, of being too eager to apply the classification and generalization of scientific methods to other cultures.\(^10\) However, it is true that cultural differences had fewer political implications for Voltaire than for Herder.

The universal values proposed by the philosophe, as Kissinger rightly points out, could be spread worldwide only through modern technology. At the same time, such technology has ended or accomplished the Enlightenment and is now going its own way, creating the need for a new guiding philosophy. What could this philosophy be? A transhumanist philosophy? An Eurasian conservative revolution? A Landian accelerationism, or maybe a leftist version of the same, both hoping to overcome capitalism by accelerating its contradictions until it self-destructs? Henri de Saint-Simon once believed that speeding up industrialization and improving transportation networks would make socialism possible, since resources and goods would be more evenly distributed.\(^11\) In his essay “Paris, Capital of the Nineteenth Century,” Walter Benjamin pointed out that Saint-Simon’s followers “had anticipated the development of the world-economy, but not the class-struggle.”\(^12\) A well-constructed rail network may actually reinforce inequality because it can distribute capitalist resources more efficiently. Acceleration in this sense is only a way to push Enlightenment universalism further. How can accelerating technology lead to the end of capitalism if it only creates another process of deterritorialization? One may argue for an absolute deterritorialization, but that would be Hegel approaching Deleuze from behind and giving him a monstrous child. Some claim that technology has surpassed capitalism itself, but this assumes that capitalism is a human-like creature who can be disrupted and rendered obsolete by technology, like an old man who doesn’t know how to send emails anymore after switching from a PC to a Mac.

As an aside, one must admit that technological acceleration is historically necessary for globalization, since non-Western countries have been able to enter the Western-dominated geopolitical arena only by creating a cost-effective assemblage of modern technology, cheap labor, and cheap nature. Both André Leroi-Gourhan and Gilbert Simondon pointed out that groups with advanced industrial technology were able to scale up their influence over groups with preindustrial technology.\(^13\) For Simondon especially, the revolt of minority groups against technology in the name of culture misunderstands the role of technology, since he sees a rationality in technology that transcends the limits of cultural difference. More importantly, Simondon holds out hope that the increasing perfection of technology will provide new perspectives for resolving the problem of alienation and the antagonism between culture and technology. However, the issue is far more complicated than Simondon’s optimism admits. In the colonization and modernization process, technological differences also maintain and reinforces power differences.

But what if the situation is reversed today, when, as Spengler said, the West is, or at least seems to be, surpassed by its students — a situation that will only continue? Take China as an example. Deng Xiaoping’s accelerationist politics has given China a leading role in the new millennium; Shenzhen has become China’s Silicon Valley and one of the craziest urban experiments in the world today. It is through technological acceleration and its accompanying economic triumph that we now witness the newest geopolitical arrangement to emerge since the Cold War: the East outstripping the West through digital innovation and automation. It is for this reason that Donald Trump has claimed that China has been stealing jobs from the US: jobs that were outsourced to China for its cheap labor are now being taken over by machines.

This technological acceleration is not a rupture, but the continuation of the Enlightenment. Kissinger’s article ignores the fact that technology, which embodies rationality and epistemology, is the true universal. That’s why he interprets the contemporary situation as the end of the Enlightenment, instead of its continuation in other forms. Are we then counterposing the universal and the relative? Or is this opposition itself the problem? It is beyond our scope here to deliver a treatise on the universal (though this remains an avoidable task). The desire to essentialize and establish the universal as a ground leads us to identify it as a substantial being, rather than seeing it as a dimension of existence. The relativists react by rejecting the universal without being able to integrate it into the particular. This oppositional thinking is at the core of both left and right populism. The same goes for the notion of humanity. By substantializing the human as a universal that transcends all particularities of culture and nature, we arrived at a humanism that is tantamount to nihilism. To get out of this
impasse, we must first of all suspend the notion of humanity that has been handed down to us. And here we may want to invoke Carl Schmidt’s critique in The Concept of the Political: “The concept of humanity is an especially useful ideological instrument of imperialist expansion, and in its ethical-humanitarian form it is a specific vehicle of economic imperialism. Here one is reminded of a somewhat modified expression of Proudhon’s: whoever invokes humanity wants to cheat.”

To reject the concept of humanity is to shatter the illusion created by a unifying discourse of the human, which belongs to a process of modernization qua synchronization. Modern technology synchronizes non-Western histories to a global time-axis of Western modernity. As both opportunity and problem, the synchronization process allows the world to enjoy science and technology, but it also draws the world into the global time-axis which, animated by humanism, is moving towards an apocalyptic end, whether it be the technological singularity, the “intelligence explosion,” or the emergence of “superintelligence.” Martin Heidegger already described this global time-axis in 1967: “The end of philosophy proves to be the triumph of the manipulable arrangement of a scientific-technological world and of the social order proper to this world. The end of philosophy means: the beginning of the world-civilization based upon Western European thinking.”

Orientalists may respond with an uncanny smile: what an exaggerated statement! But the truth easily emerges when we observe the technical apparatus surrounding us and the gigantic force that is pushing us towards an apocalyptic end. What Heidegger calls the “end of philosophy” is nothing but the victory of the anthropological machine, the victory of a humanism that aspires to reinvent Homo sapiens as Homo deus through technological acceleration. Neoreactionaries and transhumanists celebrate artificial intelligence in the name of a posthumanist triumphalism, because superintelligence and technological singularity demonstrate the “possibility of sublime humanity.”

The so-called Dark Enlightenment is an effort to push the Heideggerian “end of philosophy” to the brink through a catastrophic intelligence explosion. Like in the I Ching, where the Pi hexagram (bad luck) is followed by the Tai hexagram (good luck) in a turn from extreme bad to good, this explosion will force the West to reinvent itself — or so its advocates believe. In their affirmation of a messianic acceleration towards the abyss, they conceive of themselves as anti-humanists. But what is behind this abyss? Robin Mackay has rightly pointed out that the fatal mistake of this vision of accelerationism “was to believe that, on the horizon of the deterritorialization opened up by capital, there would be disclosed an originary desire that could flow free of instituted structures of power.” One speculates on this unknown end of absolute deterritorialization like gamblers staring at casino tokens. Accelerating disorientation does not create an exit from the global time-axis. On the contrary, it merely disrupts momentarily the established orders and conventional modes of operation. In China, for example, expanding bandwidth and storage capacity for data flow have given rise to social credit systems, which simply stabilize and reterritorialize the flow of capital. A recent survey conducted by the Free University of Berlin showed that 80 percent of Chinese respondents approved or highly approved of these social credit systems, with 19 percent neutral and only 1 percent opposed. The disruptive and apocalyptic qualities intrinsic to acceleration are by no means anti-humanist. In fact, they reveal an extreme humanism fighting to save itself through massive destruction — a twenty-first-century nihilism.

Is it even possible to escape the synchronizing global time-axis of Western modernity, without proposing a deceleration, as sociologists such as Hartmut Rosa do? Are we capable of undoing its hold in order to advance its achievements in other directions?

We need to return to the word “acceleration” itself, since it is too easy to be fooled by an unexamined relation between acceleration and speed. If we recall high school physics, where $a = \frac{v_2 - v_1}{t}$, acceleration is equal to the change of velocity (from v1 to v2) divided by time. V is velocity, not speed. Velocity is a vector having both magnitude and direction, while speed is mere magnitude. Why not consider another form of acceleration that does not push speed to its extreme, but rather changes the direction of movement, giving technology a new frame and orientation with regard to time and technological development? By so doing, we can also imagine a bifurcation of the future, which instead of moving towards the apocalypse, diverges from it and multiplies. But what does it mean to give technology a new frame? In order to do so, it is necessary to reflect on how we might reappropriate modern technology by systematically reflecting and working on the question of epistemologies and epistememes in light of multiple cosmotechnics, or simply put, the technodiversity that is historically traceable and still productive. This is a project I began with my book The Question Concerning Technology in China: An Essay on Cosmotechnics (2016), in which I use China as an example of a technodiversity that is historically traceable and still productive.
example to elaborate on different conceptualizations of technology and the possibility of conceiving such a technodiversity in history and for the future. The proposal of multiple cosmotechnics – which is not, of course, limited to China – calls for us to reopen the concept of “technics” and reexamine the conditions of technical evolution.

3. Technodiversity and the Bifurcations of the Future

Technics is anthropologically universal in the process of hominization – the understanding of the human as a species because it is the exteriorization of memory and the liberation of human organs. With drawing and writing, human beings exteriorized their memories and imaginations; by inventing flint, the ancients liberated their fingers from many activities. We do not reject the notion that there is a universal dimension to technology, but it is only one of the dimensions. From a cosmotectrical standpoint, technics is fundamentally motivated and constrained by particular geographical and cosmological specificities. If we want to respond to the prospect of global self-extinction, we need to return to a carefully elaborated discourse on locality and the places of the human in the cosmos. In order to do so, we need first of all to reopen the question of technology, to conceive of multiple cosmotectrics instead of merely two: a premodern technics and a modern technics. To be sure, we must be careful with the word “locality” and its politics. Nostalgic invocations of tradition or culture can become problematic returns to nationalism, cultural essentialism, and ethnofuturism, when not approached dialectically. Here we are not considering small groups revolting against modern technologies in the name of culture or nature; rather, we are elaborating a general strategy to reappropriate technology by first of all affirming the irreducible multiplicity of technicity. While Simondon has been an inspiration for the concept of cosmotectrics, his own critique fails to articulate technics beyond the tradition of Western Enlightenment humanism he inherited.

To propose a pluralism is a gesture which could be attributed to both reactionaries and revolutionaries. Take the example of Herder, the fiercest opponent of Voltaire and the author of the book-length 1774 essay This Too a Philosophy of History for the Formation of Humanity, which argues that cultural experiences, values, and feelings are irreducibly diverse. Can one call Herder a nationalist? Many do consider him – a Lutheran priest, student of Kant, and mentor to Goethe – to be a founding figure of German nationalism and the Volksgeist. However, this view is not universally shared. Meineke once asked: “Did not Herder, when he arose to create a new epoch, proclaim both humanity and nationality?” Philosophers like Hans-Georg Gadamer and Isaiah Berlin also saw in Herder both a populism and pluralism, or as Charles Taylor put it, a populism and an “expressivism.”

Herder is considered by some to be a genuine cosmopolitan thinker who roots cosmopolitanism in heterogeneity rather than homogeneity; he affirms differences not by claiming that each culture has a unique essence, but by arguing for the importance of locality and the equality of all cultures.

Humans are formed in distinct symbolic and linguistic worlds. Their different forms of knowledge and their different relations to the world and to the earth are not measurable by their advances in modern science and technology. The end of the Enlightenment has to begin by appropriating Herder after Gadamer, Berlin, and Taylor, since theirs is only the first step. We will have to understand the transformative power of heterogeneity instead of retreating to a certain Volk and depending on empathy or sensitivity to resolve tensions within increasingly isolated groupings. As a response to the ecological problems associated with the Anthropocene, anthropologists such as Philippe Descola and others have reopened the question of radical pluralism in a way that considers what is called “multinaturalism” instead of multiculturalism. Because naturalism, which counterposes nature and culture, is very much a product of modernity, it does not capture how nonhumans are perceived in other parts of the world. However, with modernization as a synchronization process, we encounter a tipping point that reopens concepts such as nature and technics which have been inherited as universal without being questioned. This call for pluralism is for us a reminder to consciously reappropriate modern science and technology, to give it a new direction at a time when its planetary spread opens up such a possibility.

On the other hand, we may understand Kissinger’s end-of-Enlightenment claim as marking the full realization of a single global axis of time in which all historical times converge into the synchronizing metric of European modernity. It is the moment of disorientation – a loss of direction as well as of the Orient in relation to the Occident. The unhappy consciousness of fascism and xenophobia arises from this inability to orient: as a response, it offers an easy identity politics and an aestheticized politics of technology.

More broadly, such a disorientation can be seen as a desirable and necessary deterritorialization of contemporary capitalism, which facilitates accumulation beyond temporal
The prospect of war as a solution was not pursued only in the West: the Kyoto school philosophers also proposed total war as a means of overcoming modernity. Today, could global competition over the development of artificial intelligence and space technology become the new condition of such a war? As Spengler wrote in 1933, certain forces are dragging us backwards. It is worth noting the major similarities between his epoch and ours, but we also need to pay special attention to the differences. Spengler wrote in *The Hour of Decision* of a certain dogmatic thinking in non-Western civilizations that emerged with modernity and was associated with a colonial mentality:

Immemorially old “Fellaheen” peoples such as the Indian and Chinese can never again play an independent part in the world of the great powers. They can change their masters, drive one out – as, for example, the Englishman from India – but it is only to succumb to another. They will never again produce a form of political existence of their own. For that they are too old, too rigid, too used up.

This failure is largely due to the fact that the question of technology has never been sufficiently addressed, neither in the West nor elsewhere: technology remains a utility, and there is no way of seeing the kingdom of ends beyond the limits of utility and efficiency. Efficiency is a very important factor of technological innovation, but it has to be measured according to a long-term vision instead of short-term profits. The other thing that holds back the colonial mentality is a cynicism that sees no way out. After all, who can escape the economic and geopolitical competition to master artificial intelligence when technological linearity is identified with the progress of humanity? We can be certain that artificial intelligence will have a significant impact on our societies and economies. If China or Russia slowed their pace of technological innovation, they would lose their competitive edge: Putin already declared to a room full of Russian school children on September 1, 2017 that “whoever leads in AI will dominate the world.”

But if technological acceleration and innovation are the common task of the sovereign and capital, human cynicism will only deepen as we feel increasingly helpless in the face of technological systems that displace the human roles in so many processes. True philosophical thinking can be the only response to this aporia.

I don’t mean to suggest that modern science and technology are evil (not least because they were my first areas of study). Nor am I suggesting that non-European cultures and traditions have been destroyed by evil modern technologies imposed by the West, and that therefore we should give up modern science and technology. The question, rather, is how this historical process can be rethought, and what futures are still available for imagination and realization. If we identify Enlightenment thought with modern technology as an irreversible process guided by universality and rationality, then the only question that remains to be asked is: To be or not to be? But if we affirm that multiple cosmotechnics exist, and that these may allow us to transcend the limit of sheer rationality, then we can find a way out of never-ending modernity and the disasters that have accompanied it. It would be tragic to misunderstand rationality merely as strict and rigid reasoning – unfortunately, it has been often mistaken as such. The history of reason and its relation to nature and technology, from Leibniz to cybernetics and machine learning, has to be constructed and interrogated differently than it has been.

Certain reflections on culture may provide a way to understand these different modes of technological thinking. To rediscover multiple cosmotechnics is not to refuse artificial intelligence or machine learning, but to reappropriate modern technology, to give other frames to the enframing (*Gestell*) at the core of modern technology. If we want to surpass modernity, there is no way to simply reset it as if it were a computer or a smartphone. We must instead escape its global time-axis, escape a (trans)humanism that subordinates other beings to the terms of its own destiny, and propose a new agenda and imagination of technology that open up new forms of social, political, and aesthetic life and new relations with nonhumans, the earth, and the cosmos. All of this remains to be thought, since it demands a Nietzschean revaluation of the question of technology, and this is possible only when done collectively.

In this sense, we can take Kissinger’s statement not as a target of criticism, but as an
invitation to think beyond the end of the Enlightenment, as a challenge to undertake the task of thinking through the plurality of its forms. Perhaps Kissinger’s own closing warning is the most appropriate way to end this critique of him: “If we do not start this effort soon, before long we shall discover that we started too late.”


20. Unfortunately, these anthropologists of nature largely ignore the question of technology; see my critique of this approach in Hui, “Cosmotechnics as Cosmopolitics.”


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Spengler, The Hour of Decision, 65.

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This is the task of my forthcoming book, Recursivity and Contingency.

26
In “The Question Concerning Technology,” Heidegger proposed to understand the essence of modern technology as “Gestell,” translated into English as “enframing,” meaning that every being is considered to be a standing reserve or resource.

27
Kissinger, “How the Enlightenment Ends.”