

## THINKING ABOUT TECHNOLOGY, BUT... IN ORTEGA'S OR IN HEIDEGGER'S STYLE?

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**Abstract:** Ortega y Gasset's philosophy of technology is much less known than Heidegger's. Even the authors who have compared their thoughts, have not paid much attention to this topic. This paper clarifies and assesses the differences between Ortega's and Heidegger's philosophy of technology. It will also be argued that Ortega's theses are a better guide for the present situation in order to confront the risks of technological development.

**Key words:** Ortega y Gasset, Heidegger, philosophy of technology, over-nature, enframing.

**Resumen:** La filosofía de la tecnología de Ortega y Gasset es mucho menos conocida internacionalmente que la de Heidegger. Incluso los autores que en algún momento han comparado sus pensamientos, no han prestado demasiada atención a este aspecto concreto de sus filosofías. Este artículo clarifica y evalúa las diferencias entre la filosofía de la tecnología de Ortega y la de Heidegger. Se argumenta asimismo que las tesis de Ortega son una guía más adecuada en la situación actual para afrontar los riesgos que el desarrollo tecnológico plantea.

**Palabras clave:** Ortega y Gasset, Heidegger, filosofía de la tecnología, sobrenaturaleza, *Gestell*, disposición.

At the beginning of the twentieth century, several authors dealt with the specific fact of modern technology and its power of existential and social configuration. Among them –leaving the fiction writers aside– Friedrich Dessauer (*Philosophie der Technik*, 1926), Max Scheler (*Erkenntnis und Arbeit*, 1926), Oswald Spengler (*Der Mensch und die Technik*, 1931), Ernst Jünger (*Der Arbeiter*, 1931) and Lewis Mumford (*Technics and Civilization*, 1934) can be mentioned. The interest and influence of these authors should not be underestimated; but, José Ortega y Gasset (*Meditación de la técnica*, 1939) and Martin Heidegger (*Die Frage nach der Technik*, 1945) approached this subject from a deeper philosophical view.

Ortega and Heidegger saw, clearly, modern technology as a powerful force able to reshape the human condition, and not merely as an instrument to achieve previously agreed-upon aims. They placed the question of technology at the center of philosophical reflection. This shared interest led them to notable

coincidences. For example, both radically separated modern technology from the traditional one. The craft technologies of pre-modern man were not, for them, a relevant metaphysical issue. In contrast, substantial changes in the human destiny were introduced by modern technology that reclaimed philosophical attention.

Also, both thought that modern technology could not be reduced to applied science; quite the opposite, modern science was born bringing inside a clear technological vocation. For that reason, Heidegger gave technology an ontological –but not an historical– priority over science (cf. Idhe 1983). Ortega went even further, giving ontological and historical priority to technology over science. Ortega, for example, claimed that the aim of science is not primarily to know the world, but to make technology possible. He referred to Physics as “technology of technologies” (“técnica de las técnicas”) and saw in it the possibility of an infinite technology (cf. IPL, VIII, pp. 282 and 279). He also reminds us that Galileo was educated in the navy yards of Venice, “among cranes and capstans”. Nevertheless, in spite of these similarities, their positions differed in some fundamental aspects. In the following pages I will clarify these differences and argue that Ortega’s theses provide us with a more suitable, helpful, and well-balanced view needed to deal with the present, technological world.

### **Ortega’s and Heidegger’s philosophy of technology: a short review**

In the pages of *Meditación de la técnica* (a work published in 1939 as a book, but originally presented as lectures in 1933) Ortega carries out a very suggestive critical analysis of modern technology.<sup>1</sup> As Carl Mitcham (1994, p. 45) pointed out, this was a pioneer analysis, and the most in-depth to date.

Ortega considers technology as a specific and constituent feature of human beings. This feature affords them a constant opening of new possibilities to

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<sup>1</sup> The work *Meditación de la técnica* is in the Volume V of Ortega y Gasset’s *Obras completas* (edition of 1983). Since this work will be used in this article at length, page numbers will not be cited, except when a literal and significant quotation is made. This approach also applies to Heidegger’s work “Die Frage nach der Technik”. The references to Ortega’s 1983 edition of *Obras completas* will be abbreviated in the following way: RM (*La rebelión de las masas*), MT (*Meditación de la técnica*), EA (*Ensimismamiento y alteración*), (MHAT) (*El mito del hombre allende la técnica*), (IPL) (*La idea de principio en Leibniz*), and CD (*En torno al coloquio de Darmstadt*). The commented and annotated edition of *Meditación de la técnica* by Jaime de Salas and José María Atencia (published in 1997 by Santillana in Madrid) is also recommended. The translation into English of Ortega’s texts quoted in the paper is mine. The texts in Spanish will be quoted in notes.

construct their own lives. Technology is, then, a central element in the process of humanization. Through technology human beings create a “super-nature”, or, better, an “over-nature” (*sobrenaturaleza*), not with the purpose of better adapting to the environment, but in order to adapt the environment to them. Technology transforms the environment to meet all human requirements. It humanizes the environment. In that sense, technology has an anti-biological orientation (or –using an Ortega’s term– an “ultra-biological” orientation (cf. EA, V, p. 303)). According to him, the determination that impels technological development has always been, and not only nowadays, the production of superfluous things.

The view of technology as the creation of an “over-nature” was not new. Dessauer, for instance, defended this perspective before. Neither was the view of technology as an adaptation of environment to human beings, which was already exposed by an author whom Ortega read and admired: the biologist J. von Uexküll. Ortega’s conceptual innovation was to contemplate this “over-nature” as the authentic place of human life –its construction is one which humans have always been devoted–, and also to stress the paradox that “only objectively superfluous things are necessary for human beings”.<sup>2</sup> This basically means that technology is important for us not primarily because it can satisfy our basic biological needs –for this aim would have been enough with our animal instincts. But, it is so important because technology satisfies other “superfluous” needs that make our life truly human. In fact, human beings are “ontological centaur[s]” partly within nature and partly out of it. They do not wish, according to Ortega, merely to “be in the world”, but they wish “well-being” in it. And that “well-being” is human’s fundamental need.

Using Heidegger’s terminology, it could be said that man does not *dwell upon the earth*, nor it is his job to *care* for that world (cf. CD, IX, pp. 639-640). The world is rather something that resists him, and his life is always a risk. “Man’s substance –he says in *Ensimismamiento y alteración* (EA, V, p. 311)– is not but danger. Man walks always between precipices and his most authentic vocation, willy-nilly, is to keep the balance”.<sup>3</sup> The only thing ensured to man is insecurity (cf. EA, V, p. 305).<sup>4</sup> The effort saved with the help of technology to

<sup>2</sup> “[P]ara el hombre solo es necesario lo objetivamente superfluo”.

<sup>3</sup> “La sustancia del hombre no es otra cosa que peligro. Camina siempre el hombre entre precipicios y, quiera o no, su más auténtica vocación es guardar el equilibrio”.

<sup>4</sup> After the encounter with Heidegger at the Darmstadt Congress in 1951, Ortega explicitly expressed this basic discrepancy between them in a note titled “Anejo: En torno al ‘Coloquio de Darmstadt, 1951’”. This note and Ortega’s lecture in Darsmtadt are included in his *Obras completas*, vol. IX, pp. 625-644 and 617-624. Heidegger’s lecture in Darmstadt was published as “Bauen, Wohnen, Denken”.

satisfy their basic needs, is used by human beings to invent themselves, to project and self-create their own lives. A human being, according to Ortega, is a pure program, an animal capable of fantasizing, whose instinctive deficiencies forced him to elaborate an over-natural world grounded on the possibilities that forges his fantasy (cf. MHAT, IX, pp. 621-622).

Accordingly, without technology, there is no human being. From their very origin, they are *homo faber*, and with technology they create their own world, the place where they really feel at ease. It is in the technological world where they always aim to dwell, not in the natural world. For this reason, from a purely natural point of view –the point of view “beyond technology” (“allende la técnica”)–, a human being is an ill animal and technology is the product of that illness. Human being’s illness is the ability to “*ensimismarse*”, that is, to withdraw into himself, to turn their attention towards himself, moving it away from the things, in order to create an inner world. This capacity of withdrawing into himself allows him afterwards to come back to the world, ready for action and for the technological operation. Ortega explains it as follows:

Thanks to [technology], and in proportion to its progress, man is able to withdraw into himself. But also *vice versa*, man is technician and modifies his environment for his own convenience because he took advantage of every breathing space that things allowed him to withdraw into himself, to set within himself and forge ideas about the world, about things and his relation to them, and to build up an inner world. (EA, V, pp. 301-302).<sup>5</sup>

Ortega certainly cannot be said to be a naive optimist as far as the promises of technology are concerned. If he pays attention to technology, it is because, as he tells us, it “has become a new and huge problem”. It is a problem, in the first place because the impenetrability of technology makes ordinary persons nowadays less conscious about their living conditions than were, say, the medieval people. The over-nature created by technology has become indispensable and more and more dense.

In this unconsciousness we run a double risk: blurring the primary nature that remains underneath and seeing technology as something effortlessly produced. Moreover, technology, by itself, cannot fill our lives. It helps us live, but it cannot provide us with goals for life. Each person’s life is a project, and

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<sup>5</sup> “Gracias a [la técnica], y en la medida de su progreso, el hombre puede ensimismarse. Pero también viceversa, el hombre es técnico, es capaz de modificar su contorno en el sentido de su conveniencia, porque aprovechó todo respiro que las cosas le dejaban para ensimismarse, para entrar dentro de sí y forjarse ideas sobre ese mundo, sobre esas cosas y su relación con ellas, para construirse un mundo interior”.

then each has to forge its content. Life is not given to us ready-made. So, our life becomes empty when we put all our trust in technology. Because of technology, many people experience a dulling in their sensitivity to the historical and cultural conditions of their existence. Consequently, their capacity to choose a personal life-project gets more limited. On the other hand, if in the past human beings used tools, with modern technology they have become –to a great extent– the machines’ tool (cf. MT, V, especially cap. XI). Finally, technology is a danger because “the capacity to construct a world is inseparable of the capacity to destroy it” (IPL, VIII, p. 86),<sup>6</sup> and nowadays technology has already reached this possibility.

However, after pointing out the risks, Ortega acknowledges our debts to modern technology as well:

For the ordinary people through all the ages, “life” had principally meant limitation, obligation, dependence; in a word, pressure. Say oppression, if you like, provided it be understood not only in the legal and social sense, but also in the cosmic. For it is this latter which has never been lacking up to a century ago, the date at which starts the practically limitless expansion of scientific technology –the technology based on physics but also the administrative technology. Previously, even for the rich and powerful, the world was a place of poverty, difficulties and dangers. (RM, IV, p. 177).<sup>7</sup>

If Ortega was critical about modern technology, Heidegger considered it to be the supreme danger. Heidegger’s philosophy of technology is much more widely known than Ortega’s, so I will be brief in my exposition. He emphasizes –in a stronger way than anyone before– that modern technology involves far more than instruments, tools, and machines. If we consider it as a group of neutral instruments, we will not be able to understand technology’s essence. Obviously technology is made up, among other things, of instruments and the objects produced by them. Heidegger does not deny that, but he thinks this is not the main issue concerning technology. The instrumental view of technology is “correct”, but it is not yet “true”, i. e., it is no more than a limited and not essential truth. We cannot find the *essence* of technology among instruments and

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<sup>6</sup> “La capacidad para construir un mundo es inseparable de la capacidad para destruirlo”.

<sup>7</sup> “Para el “vulgo” de todas las épocas, “vida” había significado, ante todo, limitación, obligación, dependencia; en una palabra, presión. Si quiere dígase opresión, con tal que no se entienda por éstas sólo la jurídica y social, y olvidando la cósmica. Porque esta última es la que no ha faltado nunca hasta hace cien años, fecha en que comienza la expansión de la técnica científica –física y administrativa–, prácticamente ilimitada. Antes, aun para el rico y poderoso, el mundo era un ámbito de pobreza, dificultad y peligro”.

machines. Taking as a starting point his analysis of the Greek concept of “producing” (*poiesis*) and its German translation: *hervorbringen* (written “*Hervor-bringen*” by Heidegger, that is: “bringing-forth”), Heidegger thinks that technology must be understood as a way of revealing (*eine Weise des Entbergens*), a way of bringing-forth what was concealed. The Greeks used the word ‘*aletheia*’ (truth) to designate this revealing and considered the “*technē*” as a way of knowledge consisting of bringing forth the things. Technology belongs then, according to Heidegger, to the realm of revealing, and so to the realm of “truth”.

However, the mode of revealing of modern technology is not the same bringing-forth as in Greek *poiesis*, but “the revealing that rules throughout modern technology has the character of a setting-upon (*Stellen*), in the sense of a challenging-forth (*Herausforderung*)” (Heidegger 1962a, p. 16). Heidegger uses the term ‘*Gestell*’ (*Enframing*) to mean the special kind of revealing that constitutes the essence of modern technology. Whereas what Greeks called *poiesis* (that is, handwork, art and even nature (*physis*)) reveals reality in a non-disturbing way which “lets what presences come forth (*her-vor-kommen*) into appearance” (p. 27), modern technology’s revealing challenges nature in such a way that everything in it appears as stock, as a “standing- reserve” arranged to be ordered. Modern technology makes us see the whole reality as mere resources to be unrestrictedly used, as consumer goods stripped of any intrinsic condition. Nature becomes, then, a gigantic gas-station (cf. Heidegger 1959, p. 20). Here is the real problem with technology and not so much because of its environmental or social effects. Heidegger’s great skill was to show us technology as an ontological issue which cannot be reduced to ethical or epistemological considerations. The practical effects, positive or negative, of technology are not what really matter, but the fact that technology is a way to approach the world that reveals things as a standing reserve. “Heidegger’s concern –explain Dreyfus and Spinoza (2003, p. 341)– is the distortion of human nature and subsequent loss of meaning that results from technicity, that is, the technological style of life –not the destruction caused by specific technologies”. Thereby, Heidegger changed the philosophical reflections about technology in a surprisingly and fruitful direction.

The danger is not in the technology itself. The greatest danger lies in its essence, in its way of revealing, and this is shown in two ways. On the one hand, modern technology leads us to see other human beings only as “human resources” (as we usually say) that can be used as we wish. On the other hand, it leads us to establish a demanding and controlling relationship with the world surrounding us (nature in particular) that hinders a more adequate access, richer

and deeper, to reality. In Heidegger's words, the essence of technology "threatens man with the possibility that it could be denied to him to enter into a more original revealing (*ursprünglicheres Entbergen*) and hence to experience the call for a more primal truth (*anfänglicheren Wahrheit*)" (Heidegger 1962a, p. 28). Such a more original revealing might be accessed, for example, through fine arts or poetry.

So, human beings' relationship both with themselves and with everything else is endangered by the essence of modern technology. The greatest danger of modern technology does not lie in damaging the environment or destructing cultures. The real danger is that the technological comprehension of the world becomes the sole way to relate to things and to other human beings; and, simultaneously, it remains hidden the very fact that technology unconceals Being in a particular, limited and exclusive way. The danger is, all in all, that everything appears as a technological problem; that calculative thinking is accepted as the sole possible way of thinking; that nature, politics, culture, and ideals become objects available for consumption.

We cannot change this situation, among other reasons because it has not resulted from a human decision. The way of revealing of modern technology is a destiny (*Geschick*) that shapes our time, although not in the strong sense of a compelling fate. Any attempt to dominate or to control technology is already committed to this challenging revealing. Controlling technology is trying to apply to it the same kind of rationality that constitutes the root of the problem. As a destiny, we cannot simply get rid of technology, and we cannot control it either. Following Nietzsche, Heidegger considers this desire of controlling technology as a manifestation of the "will to will", that is, the will directed toward itself, toward the extension of its power, and then, as an expression of the dominance of Enframing. The control of technology, if possible, would leave us submitted to the unilateral imposition of *Gestell*.

Heidegger also sees in the essence of technology the possibility of some salvation. This is the sense he gives in this context to the Hölderlin verses: "But where danger is, grows / the saving power also". That possibility begins by not seeing technology only in its instrumental aspects. So, we will be able to understand that the essence of technology belongs to the realm of truth. And once we understand that, we may begin to gain a freer relation to technology; a relation in which we use technology without completely depending on it. Efficiency and calculative thinking would not, then, be our sole aims. Art, particularly, as a more primal way of revealing, can help raise the saving power—although Heidegger does not claim specifically that in art is salvation—, for it can show us that the technological point of view is not the sole or the deeper

way to relate to things. Thus, art might avoid the unrestricted domination of the challenging revealing. Some years later, Heidegger seems to have lost even that vague hope, and claims that “only a god can save us” (cf. Heidegger 1989, p. 71). However, this is to be interpreted in the context of Heidegger’s philosophy and not in a literal sense, as an irremediable situation. A saving god in that context may be a new and radically different way of understanding Being.

## The differences

I will next focus my attention on what I consider to be the central differences between Ortega’s and Heidegger’s views of technology, and I will assess the results of these comparisons. I am aware of the difficulties in fitting Heidegger – and Ortega – under the traditional philosophical categories. In fact, as I will argue, some of the contrasted labels that I use –e. g. “optimism vs. pessimism”, or “determinism vs. voluntarism”– do not do justice to one or to both of them. However, although their thought cannot be fully captured by these dichotomies, they are still helpful in comparing their ideas about technology, provided that they are used as a general frame, as coordinates, to place the direction of their thoughts, rather than as precise qualifications of these thoughts.

### *1) Optimism vs. pessimism*

One of the most outstanding and most discussed differences between both authors’ views of technology is their basic –‘emotional’– attitude towards technology. Although it is quite clear that Ortega’s pessimism increased over the years, it never reached the level of Heidegger. In his more detailed and mature work, *La idea de principio en Leibniz*, he even mocked Heidegger’s somber tones (cf. IPL, VIII, pp. 296-299). This difference of attitude is a constant feature in all the aspects of their philosophies, not only in their views about technology. Heidegger thinks that the current situation (i. e., flight of gods, destruction of the environment, human overcrowding, hatred for every creative act) is so ominous that it is puerile and ridiculous to talk of pessimism (cf. Heidegger 1976, p. 29 and 1989, p. 69). By contrast, as John Graham wrote (1994, p. 258), “Ortega felt he had developed a «positive» philosophy that suited Western man in the changeable circumstances of contemporary life –that is, not only for the negative crisis situation but for a creative response based on history, which might rescue him from the Abyss of Nothingness and set him on the path to a stable and balanced existence again in a future epoch of normalcy.” The difference cannot be greater. Heidegger emphasizes the familiarity of man with



the world, which is undermined by technology, while Ortega repeats in his later works that the world is first and foremost resistance, the world is “strange and ultimately hostile” (CD, XI, p. 641). Without the help of technology the world would show us its real face of hostility and precariousness, hence the importance that Ortega gives it. But the world is not only resistance –and this is the point of optimism that he maintains until the end–; “the World as resistance reveals the World as «assistance». [...] So is the World; exposure to the elements and home at the same time” (IPL, VIII, p. 299).<sup>8</sup>

The world is, then, both resistance and assistance, and that precisely makes human beings ontological centaurs, half-immersed in nature, half-transcending it. Technology opens unlimited possibilities that place them beyond nature, and outside of an inexorable natural or historical destiny (cf. Regalado 1990, p. 231). Man is for Ortega “infinitely plastic” and technology releases him for the task of being himself. It allows him to devote himself more comfortably to the task of self-creation. That is certainly far away from Heideggerian pessimism. By means of technology, man “humanizes the world, injects it, impregnates it, with his own ideal substance. And it is possible to imagine that one day or another, in the far depths of time, this terrible outer world will become so saturated with man that our descendants will be able to travel through it as today we mentally travel through our own inner selves” (EA, V, p. 302).<sup>9</sup> These are not the words of a pessimist, let alone a technophobe. Technology is, indeed, an essential requisite of human happiness, but also of human existence. Without technology, the humanization process would not have happened; there would not have been a human world and perhaps the human beings would have soon disappeared. For that reason, Ortega is very worried –and he admits that this worry inspired the redaction of *The Revolt of the Masses* (cf. MT, V, p. 331)– about the possibility that the highly developed technology will disappear, due to the mass-man’s lack of interest for the cultural conditions that make feasible our huge technological development. Mass-man takes it for granted. As paradoxical as it may seem, it is the expansion of technology which, according to Ortega, facilitates this confusion of mass-man. In fact, to a large extent, mass-man is one of the side-products of technological development. The mass-man is the man who has uninhibitedly expanded his vital desires, but does not feel any gratitude towards

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<sup>8</sup> “[E]l Mundo como resistencia a mí me revela el Mundo como «asistencia». [...] Así es el Mundo, a la par, intemperie y hogar”.

<sup>9</sup> “[Con la técnica el hombre] “humaniza el mundo, le inyecta, lo impregna de su propia sustancia ideal y cabe imaginar que, un día entre los días, allá en los fondos del tiempo, llegue a estar ese terrible mundo exterior tan saturado de hombre, que puedan nuestros descendientes caminar por él como mentalmente caminamos hoy por nuestra intimidad”.

what has made possible the ease of his existence. Ortega attributes him as having the psychology of a spoiled child. “To spoil means to put no limit on caprice, to give the impression that everything is permitted to him and that he has no obligations” (RM IV, p. 178).<sup>10</sup> This kind of man would not have been possible, at least in a generalized form, without the commodities and the comforts provided by technological development.

Maybe, the question for Ortega now, in view of his confidence in unlimited technological potentialities, is: How far can we mold human beings before they stop being recognizable as human? The reverse question can also be asked: How far can we humanize the world, submitting it to an “over-nature”, without its ceasing to be nature? And above all: Do we really control that process? The problem that Ortega’s philosophy of technology leaves open is how and where to put the limits.

It is in the answer to these questions where the differences between Ortega and Heidegger can be more clearly noted. Let’s make a little thought-experiment to see this fact sharply: What would happen if technology achieves, in the future, more success than nowadays and resolves all or almost all of the serious environmental and social problems that afflict us? We cannot be sure about what Heidegger and Ortega would reply, however we can conjecture that for Heidegger this success produces deeper nihilism and our moving away from any authentic understanding of Being.<sup>11</sup> While, Ortega would believe that there would be a more complete realization of “over-nature” –which would permit greater well-being for future generations. Therefore, Ortega would probably see in that hypothetical situation an opportunity for people more easily to forge their life-projects, and, at the end of the day, find more possibilities for self-creation. Although it would imply, for him, also more dangers due to technological hypertrophy, with the result that a happy ending is not at all guaranteed.

## *II) Adventure vs. nostalgia*

Patrick Dust (1993, p. 128) described in very vivid, almost dramatic, terms this dichotomy that, in his view, can be applied not only to Ortega’s and Heidegger’s philosophy of technology, but also to all philosophy:

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<sup>10</sup> “Mimar es no limitar los deseos, dar la impresión a un ser de que todo le está permitido y a nada está obligado”.

<sup>11</sup> Hubert Dreyfus (1993, p. 314) suggests something similar when he writes: “Heidegger admits and fears the possibility that everyone might simply become healthy and happy [as a consequence of technology success], and forget completely that they are receivers of understanding of being. All Heidegger can say is that such a forgetting of our forgetting of being would be the darkest night of nihilism”.

Sooner or later the authentic philosopher discovers the fact of a difference, an insurmountable gap, between him and the rest of the universe. Here is a dangerous moment for every philosopher! In view of this terrifying discovery there are two possible answers or reactions. One can look quickly back and try to find a way to recover his whole being, insisting in that it is possible to repair the rupture and to meet something that pre-existed the gap in our obscure origins. On the other hand, one can tolerate the vision of the difference –what is not easy–, try to accept it, and devote himself to the task of transforming it in something positive. In other words, either one can give oneself over an infinitely attractive nostalgia, or one can renounce this, accepting the impossibility of eliminating that gap, and can embark on the adventure of improving this life such as it is.

As expected, Dust holds that Heidegger took the first path, whereas Ortega took the second. Heidegger has been charged many times with this accusation<sup>12</sup> because of the romanticism of his references to past technologies in comparison to modern ones –the old waterwheel or the wooden bridge in comparison to the hydroelectric power plant placed into the current of the Rhine, for instance. Even Dessauer (1964, p. 369) reproaches him for this nostalgic and idealized view of the past and reminds him that if there was something that challenged nature, then it was the deforestation of Europe during Antiquity and the Middle Ages done to create pastures and arable lands. If that was not to treat nature as a standing-reserve, then nothing did so. The challenging revealing, Enframing, was not something new, but would have existed throughout the history of technology. If Enframing involves unlocking, transforming, storing, distributing and switching (cf. Heidegger 1978a, p. 20), then all these activities already occurred before modern technology. According to this criticism, imagining a completely-alien-to-Enframing technology would mean to yearn for what never existed. The mere instrumental uses of nature, as well as its systematic exploitation, not to mention the organization and planning of work, have often been present in the past. In the modern age, Enframing has only extended its dominance and its force, although in previously unimaginable proportions. As a matter of fact, the usual interpretation of modern technology focuses its basic differences with craft technologies on its interweaving with science, and not in the way it treats or contemplates nature.

Ortega, for his part, stresses the sporting sense of life; accepts the risk as inherent to human life; and sees the human being as a mere project always to be

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<sup>12</sup> A remarkable example is Ihde (1991), chap. III. Arguments against this criticism can be found in Kolb (1986), chap. 9.

fulfilled. So, he chooses to take on our permanently problematical condition and sees the over-nature created by technology not only as unavoidable, but also as necessary to confront it. Human power has been and will always be a danger. It is pointless to look back to contemplate a lost relationship with Being, cherishing the hope of its return in a way still unknown. The future of human beings is not assured and never will be. The uncertainty is the human condition. But, with technology, humans are exposed to the adventure of self-creation and the creation of their world, namely, the humanized world in which they really dwell.

### *III) Voluntarism vs. determinism*

Heidegger's name frequently appears in the list of authors who supported technological determinism. However, the question is not as clear as supposed. To be sure, Heidegger claims:

Technological development will move faster and faster and can never be stopped. In all realms of his existence, man will be more and more tightly surrounded by the forces of technological devices and automates. The powers that everywhere and in every time demand, chain up, drag away, and besiege man under the form of some technological equipment or fittings –these powers have outgrown his will and his capacity for decision long time ago, because they were not made by man. (Heidegger 1959, p. 21)

And he insists on another occasion: “In its essence, technology is something that man does not control” (Heidegger 1989, p.69 and 71). And yet in another:

[I]t seems yet, and so over and over again, as if technology were a means in the hands of man. But, in truth, it is the essence of man that is now being ordered forth to walk hand by hand to the essence of technology. [...] If the essence of technology, Enframing as the danger within Being, is Being itself, then technology will never allow itself to be mastered, either positively or negatively, by a mere human doing set by itself. Technology, whose essence is Being itself, will never allow itself to be overcome by men. For that would mean that man was the master of Being. (Heidegger 1962b, pp. 37-38).

But he also says:

I see the situation of man in the world of planetary technology not as an inextricable and unavoidable destiny, but I precisely consider the task of

thinking to contribute, within its limits, to help man achieve a satisfactory relationship with the essence of technology. (Heidegger 1989, p. 77).

Is Heidegger a technological determinist? Can human beings do something to reach a satisfactory relationship with (the essence of) technology? Or is this matter in the hands of powers that they do not control? To answer this question, we need to clarify the meaning of the expression ‘technological determinism’. Diéguez (2005) has distinguished three different ideas under this umbrella concept:

- 1)Technology determines the social processes and the historical becoming.
- 2)Technology is determined by natural laws.
- 3)Technology determines itself; it follows an autonomous development.

Of course, it would not be accurate to attribute to Heidegger the label of technological determinism in the senses of (1) and (2). The issue is if the third sense is appropriate. Heidegger denies that the current dominance of technology is an inexorable fate, and what is more, his philosophical position does not fit at all with a fatalism that dictates, as unavoidable, future events. He does not expressly claim anywhere –as Jacques Ellul does in his work of 1954 *La technique ou l'enjeu du siècle*– that technology generates itself and is completely isolated from any external factor. Technology is not, for Heidegger, an intrinsically autonomous system. However, it also seems clear that Heidegger did not think that human beings could gain dominion over technology. The very fact of trying to control it is, as previously mentioned, a form of technical acting, and therefore, a form of extending the calculative thinking and the will to power. There are, then, some reasons to ascribe to him somewhat of a non-fatalist and historically contingent determinism in the sense of (3).

Ortega is a long way from being a suspect of determinism. He does not think at all that technology is subject to an internal law that makes its development an autonomous or intrinsically negative process. But, he is not a voluntarist either. He does not think that technology completely depends on our desires. Firstly, we could not renounce to it: “Present-day man [...] has no choice of whether to live in nature or take advantage of this over-nature. He is irremediably attached to it, and lodged in it, as primitive man is in his natural environment.” (Ortega MT, V. p. 368).<sup>13</sup> And secondly, Ortega is fully aware of

<sup>13</sup> “El hombre de hoy [...] no puede elegir entre vivir en la naturaleza o beneficiar esa sobrenaturaleza [creada por la técnica]. Está ya irremediabilmente adscrito a esta y colocado en ella como el hombre

the transformation that our values and our aims experience because of technology. Technology has indeed a great influence on our will.

Perhaps the best way to describe Ortega's position is that there is a constant interaction between technology and will, with one conditional on the other. Human will implements the products of fantasy to satisfy, by means of technology, the superfluous needs that are our real necessities. But for its part, the so-created-world modifies our will, and even imposes on it irresistible constraints. Technology has not its own aims. Its aims are provided by the auto-fabrication of our life, and, then, by our desires. But the hypertrophy of technology may lead us to a crisis of wishing. That means that the simple voluntarism, that sees only one way between our wishes and the technological achievements, is false. Therefore, Ortega is neither a technological determinist nor a technological voluntarist. He concedes the possibility of controlling technology, but he does not ignore the complexity and difficulty of such control, and the multiple ways in which the technologically created over-nature can affect our aims.

#### *IV) Action vs. releasement*

Heidegger's thought has had a powerful influence on the ecological movement. This is, after all, a very surprising fact, since he not only gives no suggestion to that kind of action, but he also considers any attempt to take action as a sign of the dominance of Enframing. In fact, his influence has been more important in the field of deep ecology. This part of the ecological movement, rather than looking for concrete solutions embodied in immediate actions, favors a radical change in our attitudes toward nature. Such a radical change should be based on a non-anthropocentric reflection about our situation in the world, and especially about our relationship with others living beings. In other words, a change in our understanding of Being that lets things be and does not contemplate them only from the point of view of human-centered evaluative schemes (cf. McWhorther (ed.) 1992, Zimmerman 1993 and Ferry 2002). Heidegger repeatedly insists that it is not in our hands to give a new direction to the situation.

Of course, Heidegger does not refuse technology. It would be absurd to do this when it is obvious that millions of people today depend on technology to survive. What he seeks is that human beings gain a freer and more satisfactory relation to it, or to be precise, to its essence. But, how can such a better relationship be obtained? And, how shall we behave when faced with the increasing dominance of technology?

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primitivo en su contorno natural”.

There are few concrete indications in his works to answer these questions. It is not, according to him, a task for the thinker to give such responses. He says only that by meditating about what still remains unthought we can prepare the disposition to wait for some absent god. Before asking what we shall do, we had better ask ourselves how must we think. But, he believes that thinking is the genuine action (cf. Heidegger 1962b, p. 40). As for our behavior concerning technology, falling completely captivated by it would be as wrong as refusing it outright. Both reactions remain trapped in the technological logic. The best attitude to be adopted is one of releasement, serenity, composure, detachment. All these are the terms used to translate the Heideggerian term '*Gelassenheit*'. Note that the idea of inaction is close to all these translations. As Heidegger explains, the point is to be able to use the technological devices and keep ourselves free in that use, so we may let go of them if we want to. We should be able to say yes and no at the same time to these devices. Anticipating the criticism of encouraging inaction, Heidegger claims that acting superior to all actions is concealed inside releasement. However, this acting is not an activity, because it does not belong to the domain of will (cf. Heidegger 1959, pp. 24-25 and 35).

How can the person in the street, not the ascetic man or the Buddhist monk, achieve something like that without hypocrisy?<sup>14</sup> What would be different in the use and development of technology if everybody behaves in such a way? Could the releasement provide some reason not to carry out a certain technological process, or to develop a certain product instead of another one? Maybe these two last questions can have a positive answer, because –although releasement cannot offer us an ethic for technology<sup>15</sup>– it could make us stop seeing things just from a technological perspective. In one of his more hopeful moments, Heidegger writes that releasement and openness to the mystery “give us a vision of new roots. Someday that might be fit to bring back to life in a changed form the old and now rapidly disappearing roots.” (Heidegger 1959, p. 26). Nevertheless, political and environmental activists should not expect many practical instructions from that position (cf. Feenberg 1999, chap. 8).

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<sup>14</sup> Hubert Dreyfus thinks –very enthusiastically in my opinion– that contemporary Japanese people can do it, as when they put the television set and the household gods on the same shelf (cf. Dreyfus 1993). What would Dreyfus think about the Spaniards' capacity for releasement if he knew that even nowadays the image of the Virgin or the Sacred Heart is placed in on TV set in many homes?

<sup>15</sup> For a contrary opinion, see Dahlstrom (1988) and, specially, Young (2002). In my view, however, these interpretations that draw an ecological ethics or some other practical advices from Heidegger's thought are not very coherent with Heidegger's explicit claims in this regard. The examples mentioned by Young are very clarifying for a non-prejudiced listener.

There is, doubtlessly, more elbow room for action in Ortega's thinking. First of all, human beings have to strive to keep contact with the natural ground which is underneath over-nature. Then, by means of culture, they may lay the foundations for a responsible technological activity. As already pointed out, human beings do not desire simply to be in the world. What they pursue with much effort is well-being. Therefore, they cannot relinquish technology.

It is pointless to become paralyzed over the huge threats from technology. Those threats are, after all, the result of our actions. There is some chance of dealing with these threats if human beings make better use of their creative imagination, and also if they reorient their wishes and their life-projects. Not surprisingly, given this exhortation to action, Javier Echeverría sees in Ortega's thought inspiration for humanization of the new technologies of information (Echeverría 2000). Ortega would not see any intrinsic problem in the attempt to control technology in order to avoid its excesses. He would not consider this control as the spreading of a "will to will", and, then, as the submission to the dominance of calculative thinking. Humans have no options but to be technicians. They can just do their best. Keeping afloat is the goal, and, for that aim, technology is indispensable.

*V) Crisis of wishing vs. dominance of calculative thinking*

Setting aside the obvious negative consequences to the environment and traditional ways of life, what is the most important result for human beings from the planetary success of modern technology? Again Ortega's and Heidegger's analyses differ. Using Molinuevo's (2000, pp. 8-9) contraposition, for Ortega the consequences of technological development are essentially in the realm of wishes, whereas for Heidegger they are in the realm of reason, or more precisely in the realm of thinking and its relation to Being. In Ortega's view, the consequence of the hypertrophy of technology has been not to know what to wish for, while in Heidegger's view, technology has reduced the whole of reality to *Bestand*, to standing-reserves arranged to be used, preventing us from a more genuine access to Being.

According to Ortega, present-day humans have at their disposal a huge power to realize many things, but precisely for that reason they do not know what to do. They have a big repertory of possibilities available to them, and they do not know what to be. Because to know what to be, to know what to do, to know what to wish for are not easy tasks, and the imagination needed for them has been undermined, not boosted, by technology:



Observe the particular anxiety of the newly rich man. With all wish-fulfilling means at his command he finds himself in the situation of not knowing how to wish. At the bottom of his heart he notices that he wishes nothing; that he is unable to guide his desires and to choose among the innumerable things offered by his environment. So he looks for an intermediary to orient him, and he finds one in the predominant wishes of other people. Here is the reason why the first purchases of the newly rich are an automobile, a player piano and a phonograph. He has entrusted the other with the task of wishing for him. (MT, V, pp. 343-344).<sup>16</sup>

Summing up, present-day humans suffer from a lack of imagination, and that prevents them from being the creator of life-projects able to give technology some content and some purpose. They simply follow the general desires induced, to a large extent, by mass media. Their wishes are, in fact, “pseudo-wishes, spectral desires devoid of sincerity and vigor”. The exclusive faith in technology makes human life empty. “Just because it is full of possibilities, technology is an empty form –like the most formalistic logic–, and is unable to determine the content of life.” (MT, V, pp. 344 and 366).<sup>17, 18</sup>

For Heidegger, technology is the consummation of the metaphysics initiated by Plato. It is the last manifestation of the calculative and productive thinking which was present in Platonic *eidos*, understood as a model, a prototype in the hands of a craftsman. Western thinking was, then, destined from the beginning to the planning of reality and to the calculation of its possibilities. Not surprisingly, it led to the modern science and technology.

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<sup>16</sup> “Observen ustedes la específica angustia que experimenta el nuevo rico. Tiene en la mano la posibilidad de obtener el logro de sus deseos, pero se encuentra con que no sabe tener deseos. En su secreto fondo advierte que no desea nada, que por sí mismo es incapaz de orientar su apetito y decidirlo entre las innumerables cosas que el entorno le ofrece. Por eso busca un intermediario que le oriente, y lo halla en los deseos predominantes de los demás. He aquí la razón por la cual lo primero que el nuevo rico se compra es un automóvil, una pianola y un fonógrafo. Ha encargado a los demás que deseen por él”.

<sup>17</sup> “De puro llena de posibilidades, la técnica es mera forma hueca –como la lógica más formalista–; es incapaz de determinar el contenido de la vida”.

<sup>18</sup> Carl Mitcham (2000, p. 44) sees a confirmation of Ortega’s claims in the way in which depth is sacrificed to fun in human and love relationships or in the relationship with our body. One manifestation of that would be the permanent concern for our physical appearance. To its service, we use the techniques of cosmetic surgery, the designer drugs, and the genetic engineering. Mitcham sees here the main singularity of Ortega’s thought about technology, and he thinks that Heidegger’s and Ellul’s works will subsequently confirm these theses, although in a less straight-forward and deep way. Mitcham clearly prefers Ortega: “If we compare him with Ortega, there is something ethereal and remote in Heidegger, who seems incapable of appreciating the human implications of modern technology.” (Mitcham 2000, pp. 44-48).

A previous step, in the first moments of the modern age, was to forge a picture of the world, i. e., to consider the world as something to be represented, something that can be brought before humans in order to be arranged by them; correspondingly, to view humans as subjects who have representations (cf. Heidegger 1972). Nevertheless, neither the way opened by Plato nor its outcome –technology– were optional. It was not human beings who decided. Since then, the spread of calculative thinking has been increasing, and offers threats to be the only valid and legitimate way of thinking. Planning, calculation, and arrangement are all manifestations of this way of thinking, imposing themselves on our way of dealing with things. We should look for a new relationship with the world through meditative thinking. Only in this way, could we know what is not submitted to calculation (Heidegger 1959, pp. 25-28). But, that path is not compatible with technology, because technology can be identified with the lack of meditation. Meditative thinking, then, will be able only to indicate the existence of other possibilities which are concealed by calculative thinking.

*VI) Internal and enlightened criticism to the modernity vs. anti-modern post-humanism*

In spite of some attempts to interpret Ortega as a postmodern thinker, it seems more suitable to interpret him as a critic of some cultural aspects of modernity (rationalism –in the broad sense of faith in reason–, idealism –consciousness like an ontological and epistemological ground–, dominance of science, unmanageable and self-indulgent emergence of mass-man...). But his criticisms to modern project are not total condemnations. Ortega thinks it is possible to overcome the negative aspects of this project without relinquishing reason and the fundamental assumptions that accompanied it throughout modernity. He tries to do it through the development of a way of reason previously unnoticed. Admittedly, he declares himself in one of the titles of his works “not at all modern, but very fond of the twenty century”. But, he describes elsewhere his own philosophy as “cartesianism of life”. For Ortega, in fact, overcoming modernity means surpassing the concept of reason created by Descartes, elaborated by the idealism and fulfilled by Husserl. This concept of reason has been incapable of grasping the individual’s human life, which is not a slight deficiency, because, for Ortega, each individual’s life is the radical reality. But, for the same reason, realism which characterized antique and medieval philosophy is also to be surpassed. The deficiency is not, then, exclusive of modernity, although modernity could be blamed to a larger extent, given the greater maturity of its thought. Nevertheless, there is no reason to affirm that Ortega seriously questioned what is usually called “the legacy of

Enlightenment". We cannot find, in his works, a global refusal of technological society either. It is possible to view Ortega as an enlightened critic of modernity, close, at least in this point, to Habermas's position (cf. Espinosa 1999). Ortega's criticism of modernity is mainly directed against the distortions of reason that prevented us from seeing life of individuals as the radical reality. But, it is also directed against self-solvent tendencies which place men in charge of making fundamental public decisions who lack any project and are incapable of recognizing the enormous effort needed to create the technological world of which they take advantage (cf. RM, VI, cap. VI and p. 195).

Heidegger, however, made what Luc Ferry and Alain Renaut call a total and "external criticism" of modernity. Any human project or desire has disappeared from Heidegger's anti-humanistic criticism, and everything is framed in a history of Being in which This reveals itself to man in several ways. According to these authors, this view necessarily had to have political consequences: "Why can't we see that the main drift of Heidegger's thinking was that, from the birth of subjectivity to the world of technology, the sequence is inevitable? Why can't we realize that under these circumstances criticism of the contemporary world is basically *-Heidegger himself knew this and said it plainly-* radically incompatible with the minimum of *subjectivity* needed for *democratic* thinking, in whatever form we conceive it?" (Ferry and Renaut 1990, pp. 16-17). These trick questions will not shock anyone who remembers that in his *Introduction to Metaphysics* Heidegger said that, from a metaphysical point of view, the Soviet Russia and America were the same thing -places where unbridled technology and management of man triumph-; or that in the interview for *Der Spiegel*, he claimed not to be convinced that democracy was a political system capable of dealing with contemporary technology (cf. Heidegger 1976, p. 28 and 1989, pp. 68-69). Ortega thought quite the opposite. For him, "strictly speaking, the liberal democracy and the technology are so closely involved and overlapped than one is not conceivable without the other, and, therefore, it would be desirable to have a third name, more generic, which includes both of them." (RM, IV, p. 197, note).<sup>19</sup>

As it was mentioned before, for Heidegger, modernity is the age in which the will to power becomes autonomous and, ignoring any other aim, seeks only the dominance in itself. It is the age that consolidates the separation between object and subject, and turns the subject into the center and measure of everything. So, our relationship with the things is reduced to the representation

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<sup>19</sup> "En rigor, la democracia liberal y la técnica se implican e interponen a su vez tan estrechamente que no es concebible la una sin la otra, y, por tanto, fuera deseable un tercer nombre, más genérico que incluyese a ambas".

of objects. The present time, characterized by the dominance of technology, follows this way to its very end. The object (*Gegenstand*) disappears and is transmuted into standing-reserve (*Bestand*). Modernity shows, then, its real face: it is the age of technological nihilism. Humanism, according to Heidegger, is a consequence of this process, and, therefore, has the same shortcomings. He sees humanism as man's claim of dominance over everything. Thus, as a metaphysical doctrine, humanism prevents the question concerning Being.

Ortega's analysis is basically an anthropological and sociological one (cf. Atencia 2004), since technology shapes human beings, whereas Heidegger expressly avoids both approaches and tries to go far beyond them. Dust (1989, p. 280 and 282) has expressed clearly that:

Ortega, for his part, would agree that the essence of technology is hidden and rooted in something other than itself; but that "something" is not construed as a broader ontological mystery to which man must relate in unconcealment. It is the reality of human being engaged in the active process of making its extranatural self. [...] Technology, it is clear, enables man to transcend nature and the animal realm, but it does *not* produce a transcendence beyond the reality of humanity itself. Rather, it emerges as the appropriate vehicle for the full realization of humanity *qua* humanity, that is, as pure possibility immersed in reality [...] What matters most at this point is the dramatic contrast with the Heideggerian view, the absence of the ontological mystery, and in its place, the masterful presence of man.

This "masterful presence of man" –not his essence, but his flesh and blood–, can be found in Ortega's view of modernity and technology. If Ortega's position is not a humanistic one –because of his refusal to the idealistic commitments of humanism<sup>20</sup>–, it is certainly an enlightened conception of man in which the central place is not occupied by any abstract essence or "human nature", but by the individual human life, the life of each one of us. This masterful presence of man in Ortega's thought does not involve, however, a dominion of man over all things; neither does it extol the absolute supremacy of man over nature. It is just the consequence of the fact that individual human life is the radical reality within which all other reality appears.

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<sup>20</sup> I owe this point to José Lasaga.

### **Drawing some consequences**

Everything presented so far shows Heidegger to be a more radical thinker than Ortega, and less indulgent with the contemporary world. That would explain, to a large extent, the present popularity of his ideas among many ecologists and many critics of modern Western societies. But, it is advisable to look at this appraisal question more carefully, because the critical radicalism is not always the best resort in hard times.

Although the authors who have compared Ortega and Heidegger usually consider the latter to be a deeper and more creative philosopher, in terms of technology, the scale tends to tip in favor of Ortega.<sup>21</sup> Why? Is it simply because these comparisons were often made by authors more favorable to Ortega's thought? It does not seem that this is the best explanation, since if they conceded superiority to Heidegger in many points, why not in this one as well? Probably the truth is closer to the idea that anyone who is sympathetic to Ortega's thought would be quite reluctant to accept Heidegger's radical criticism of modernity, well-represented by his criticism of technological society. For an Ortega sympathizer, Heidegger's explanation of the ills afflicting our society is absolutely one-sided –everything seems to be, for Heidegger, the outcome of the same cause, and that prevents him from discriminating among different technologies and different uses of them. We are here in the presence of two distant philosophical styles and, especially, two very disparate attitudes toward modernity.

I do not think that the arguments or historical facts that could be adduced are very helpful in choosing between Ortega's and Heidegger's analyses. Usually, there is a background attitude that strongly predisposes the reader in favor of one or the other. This attitude leads to interpret the adduced evidences in very dissimilar ways. For the same reason, I don't think that reading Habermas has persuaded many followers of Derrida or Lyotard to give up their deeper philosophical convictions. I do not hope, therefore, to convert anybody to a particular philosopher's cause. I want, simply, to draw my conclusions from the comparisons just made.

A moderate optimism pervades Ortega's reflections about technology. He sees human life as a resolute "will to adventure" (cf. Cerezo 1984), and he is quite confident in the human capability of handling the situations in a technological society. On the other hand, his diagnosis of the problems focused on the crisis of wishing, and his criticism of the modern project is an internal

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<sup>21</sup> Cf., for example, López Peláez (1994).

one. I think that all these features are sufficient to conclude that Ortega's reflections about technology are more helpful and encouraging than Heidegger's for present-day human beings. In Ortega's view, human beings can still do a lot of things by means of their technology to solve the problems that they suffer from, as well as to fulfill their self-invention as human beings. But, unlike Heidegger, he does not think that moving this way forward means falling deeper under "the will to will" rule. Perhaps –it could be objected–, Heidegger was not interested in saying something to *present-day* human beings, much less in providing them with responses for acting in a technological society. I am not so convinced, because most philosophers aim to speak to their contemporaries. Even if this objection is right, then my thesis would be reinforced: Ortega's thought offers a better guide for action in the present situation.

Another possible objection runs as follows: if Heidegger's analysis is right, to accept Ortega's just because it seems more positive would be like looking for lost keys under the streetlight, just because that is where the street is brightly lit. It would be just wishful thinking. The answer to this objection starts by clarifying the point that is not that Ortega's thought must be accepted because it is more positive, but that it should be preferred to Heidegger's because his analysis is less one-sided, and more fit and balanced from a sociological point of view. This does not suggest that it is also better organized and more fruitful in its philosophical consequences than Heidegger's thought. Besides, to keep the analogy, we do not know where the keys were lost. Perhaps, we lost them under the streetlight. In other words, Heidegger may be wrong. It is not very easy to accept that the dominance of modern technology is precisely the last consequence of the way in which metaphysics has interpreted the world, or is the last manifestation of a restless and unwavering "will to will". That turns both modern technology and metaphysics into homogeneous and one-dimensional things. Their apparent diversity would be only something superficial.

Let's us suppose that Heidegger's diagnosis is right and nothing can be done to change our situation. In such a case, even if we assume the releasement and give up hope on gaining dominion over technology, the danger would not diminish nor would we bring the saving power closer to us. Then, why do not we do our best to promote a democratic control of technology? Why do not we try to develop new technologies based on humanistic assessments? Admittedly, if Heidegger is right, then the dominance of enframing would be worse in this attempt. But, perhaps, this would be the best we can do in order for metaphysics' fulfillment can be achieved. Whereas, if we do nothing, we will not advance our situation an inch. On the other hand, it is difficult to make the situation which Heidegger describes worse; anyway, in his view, human beings

have no option but to submit to the dominance of Enframing. But, if Heidegger is wrong, then we will have lost valuable time abandoning ourselves to inactivity. Whether Heidegger is wrong in his analysis or not, the problems caused by technological development nowadays simply do not allow human beings to give up their intention of gaining control over technology, at least in the cases they can. To accept that there is no way out of this situation, or that the only way out is to expect the fulfillment of what necessarily is to be fulfilled, only adds more nihilism to technological nihilism.

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