Martin Heidegger: "The Question Concerning Technology"

Overview


Martin Heidegger's essay "The Question Concerning Technology" is hard to read. There's no point in pretending that it isn't. The Guide to the Argument section of this supplement can offer some stepping-stones through Heidegger's complex discussion, but please remember that it's meant to accompany, not to replace, your own careful and critical reading of the essay.

Heidegger presented an early version of this essay as a lecture to the Bremen Club in late 1949. In 1953, he delivered a lecture entitled "The Question Concerning Technology" to the Bavarian Academy of Fine Arts, and the piece appeared in print in the following year in a collection of Heidegger's lectures and essays.

"The Question Concerning Technology" is not a long text, but it probably isn't one that you can read in two or three hours before class. Give yourself enough time so that you can break up your reading into smaller sections. Heidegger's argument builds upon itself quite logically, and it's possible to stop and start again without getting terribly lost so long as you keep track of what he has been saying. The sections of the Guide correspond roughly to steps of the discussion.

The essay is difficult for a number of reasons. Although Heidegger does not assume that his audience has a strong background in philosophy, he tends to explain philosophical concepts in a quick and condensed manner. Additionally, his method of argumentation is so dependent upon etymology--tracing the historical development of the meanings of words--that his text sometimes becomes peppered with intimidating foreign terms. Throughout the Guide, I attempt to clarify most of the foreign words Heidegger uses; the section on Foreign Terms lists these in alphabetical order with brief explanations of how Heidegger is applying them.

These difficulties are not that much of problem--they just require patience and a willingness to learn a few new words and concepts. A more profound difficulty in understanding Heidegger lies in his style, which at times can appear unbelievably elusive, or like a parody of "philosophical discourse." To a certain extent, we need to change our expectations of the essay in order to "get" more of what Heidegger is saying (and don't think that you have to "get" every sentence--not many people do). Try reading the particularly dense passages in the essay in the way that you would read a poem or listen to the lyrics of a song--does a particular pattern emerge from the words? Do the words suggest a particular image or set of images to you? If you can keep track of how the basic themes of the essay build upon each other, it's possible to follow Heidegger through the maze of his sentences without completely losing your sense of what's going on.

In some respects, Heidegger's essay makes its argument on the level of the reader's experience of reading it as well as on the level of its logic and rhetoric. Heidegger's style challenges our own "instrumental" attitude about language. If in your frustration you say, for example, "what good is
this dense, elliptical discussion of technology?" you show that have already succumbed to the "enframing" orientation to the world that Heidegger is criticizing. In its difficulty, Heidegger's language offers another occasion to confront ourselves and our assumptions. And that, as we all know, is never easy.

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"In what follows we shall be questioning concerning technology. . ."

The first pages of "The Question Concerning Technology," set the terms of Heidegger's discussion. The first paragraph establishes the essay's objective: to investigate technology in order to prepare us for a "free relationship" to it. One of the fundamental questions of the essay has to do with how "we" (and who this "we" is will be part of our own discussion) currently relate to technology, how we think about it, what we imagine it to be.

The problem for Heidegger is not so much the existence of technology or the forms it takes, but rather our orientation to technology. If we accept this formulation of the problem, then it becomes clear that our response to the various problems brought about by technology cannot be solved simply by making the technology better. It is also impossible to ignore these difficulties simply by "opting out" of technology:

Thus we shall never experience our relationship to the essence of technology so long as we merely conceive and push forward the technological, put up with it, or evade it. Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it. (287)

Heidegger's assertion that "the essence of technology is by no means anything technological" serves a number of purposes:

- It allows Heidegger to move his discussion of technology out of the domain of technological "experts." This attempt to "open up" the conversation is at once a democratic gesture (remember that this essay was first presented as a lecture to audiences who where neither philosophers nor technicians) and a strategy to shift the discussion to philosophy--a field in which Heidegger himself is the expert.
- Arguing that the essence of technology is not technological also allows Heidegger to expand the historical scope of his discussion; later on he will argue that the essence of technology actually precedes the historical emergence of the "concrete" forms of technology in the eighteenth and nineteenth centuries.
- This historical expansion, in turn, makes it possible for Heidegger to go back to Greek philosophy (one of his areas of specialization) for some of the guiding concepts for his analysis.

Heidegger's method of "questioning" strives to expose the unexamined assumptions that shape our understanding of the world we live in. He tries to find the "blind spots" in our thinking that keep us from a more profound--and, we might say now, more "empowering"--way of conceiving
the world and our place in it. In "The Question Concerning Technology," he asks, "how do we generally think about technology?" He comes up with two answers:

- technology is a means to an end
- technology is a human activity

These answers make up what Heidegger calls the current "instrumental [aimed at getting things done] and anthropological [a human activity] definition of technology" (288). He concedes that this definition is correct--that it describes technology accurately--but it does not go far enough for Heidegger's purposes.

Our everyday understanding of technology, that is, has blind spots that prevent us from understanding more fully our relationship with technology. Even our attempts to maintain control over technology, to master it so that it doesn't destroy us, are informed by our "instrumental conception" of what technology is. As Heidegger observes, "The will to mastery becomes all the more urgent the more technology threatens to slip from human control" (289).

For a fuller understanding of how humanity stands in relation to technology, we need to consider what we mean by the "instrumental": what assumptions lie behind our understanding of "getting things done" or "achieving our goals?" The basic idea in any attempt to "get something done" is that one thing (for example, a student in the Graphic Design Program) has an effect on something else (the paper, toner, paint, etc. that make up the student's next design project).

Heidegger's pursuit of the fundamental meaning of "instrumentality" leads him to an old problem in philosophy: the question of **causality**.

"For centuries philosophy has taught that there are four causes":

Heidegger uses the example of a silver chalice, the kind used in the Christian rite of communion,
Adapted from http://www2.hawaii.edu/~zuern/demo/heidegger/ 4 of 4

to illustrate the traditional model of the four causes. He immediately calls into question the adequacy of this philosophical doctrine, and asks what these modes of causality all have in common. What exactly do we mean by "cause," anyway? he asks.

This question leads him to the etymology of the Latin word *causa*. Throughout his philosophical work, Heidegger frequently turns to a careful examination of how the meaning of words have developed to help support his arguments. *Causa*, he tells us here, stems from verb meaning "to fall," and is used to designate "that which brings it about that something turns out as a result in such and such a way" (290). Although philosophical tradition traces the doctrine of the four causes back to Aristotle, Heidegger points out that the meaning of the Greek word Aristotle uses is quite different from the later words for "cause" that emphasize *effecting*. Instead, the Greek word *aition* carries the sense of "that which is responsible for something else."

Here Heidegger returns to the example of the communion chalice, recasting the example in terms of his new interpretation of the idea of causality. He translates the Latin terms of the earlier version into Greek to reinforce his transformation of the model. Silver is the material [*hyle*] that is shaped into the form [*eidos*] of "chaliceness." Both the *hyle* and the *eidos* are responsible for the chalice's being a chalice.

The chalice here has been produced in order to be used in a particular kind of activity--the Christian ceremony of communion. Its existence is determined by this context, which literally *defines* the chalice in the sense that it gives it clear boundaries: it's neither a martini glass nor a coffee cup. This drawing of defining boundaries is *telos*, and is responsible, along with the material and the form, for the chalice's existence as a chalice.

Heidegger completes his comparison of the traditional model of causality with its Greek source by showing that Aristotle had no such category as the "causa efficiens." Instead of seeing the silversmith as the agent that "effects" the production of the chalice, Aristotle's model would view the careful consideration of the silversmith--the *logos*, a term derived from *apophainesthai*, "to reveal"-- as a kind of point of departure for the chalice's coming into being. Rather than mastering the material by wrestling it into a particular form, this second version of our silversmith brings together the various potentialities of silver, the abstraction of "chaliceness," and the context in which the chalice will serve, and through this method allows the chalice to come into being.

Heidegger's recurring name for the chalice, "the sacrificial vessel," is a reference both to Christ's sacrifice and to the way in which the material, the form, the context, and the thought or consideration of the silversmith all "give themselves up" to the existence of the chalice. *To give* is an important verb for Heidegger. In German, *es gibt* [literally, "it gives"] means "there is."

Giving, in Heidegger's thought, is bound up with Being. If we think of *hyle, eidos, telos*, and *logos* as *giving* to the existence of the chalice, then perhaps the meaning of *aition* as "that to which something else is indebted" (290) will be more clear.

The silversmith is responsible for the chalice; the chalice is "indebted" to the silversmith: it seems easy enough for us to understand this idea, but Heidegger is concerned that we are going
to miss his meaning. To make sure that we follow him, he undertakes a detailed analysis of the ideas of **responsibility** and **indebtedness**.

"Today we are too easily inclined. . ."

It should be clear by now that one of Heidegger's aims in this essay is to return his readers to earlier--and, for Heidegger, more fundamental--meanings of commonly used terms. For Heidegger, far more often than not, these "more fundamental" meanings are those developed in ancient Greek philosophy. Heidegger seems to suggest that part of the exhaustion and despair that characterizes modern life and culture in the West has to do with Western culture's neglect of the real, original sense of its most basic ideas.

For example, rather than thinking of "being responsible" or "being indebted" in overly moralistic terms (being responsible for a crime, or being in debt to one's parents or the bank), Heidegger wants us to think of responsibility as the Greek supposedly did. He devotes some of the most abstract language in the entire essay to his explanation of what the Greeks meant by \textit{aitia}, "to occasion."

We sometimes use the verb "to occasion" to mean "cause," as in "his stupid hat occasioned a lot of laughter." The Greek word \textit{aitia}, according to Heidegger, has a much broader meaning: "to make present," in sense of bringing something that was not present before into time and space. Heidegger's language becomes increasingly poetic as he describes being responsible for something as bringing that thing into appearance, or "starting something on its way to arrival" (292). The four "causes" in the chalice example, which Heidegger has redefined as the four "ways of being responsible," all serve less to "create" the chalice than to assist the \textit{potential} chalice in the silver, in the idea of chalicereness, and in the context of the Christian church, in making its appearance.

Heidegger asks us to imagine a chalice that is "on its way" to existence; the four "ways of being responsible" help it to "arrive" there. They are responsible for what the Greeks called \textit{hypokeisthai}, which designates how something that we see as "present" is made present to us.

It's appropriate that Heidegger's language takes on such a poetic quality at this point, for the next term he will introduce is \textit{poeisis}, the Greek word from which our word "poetry" is derived. For the Greeks, Heidegger tells us, \textit{poeisis}, is intimately related to "being responsible" in the sense he has just discussed.

\textit{Poeisis} means "bringing forth." Heidegger distinguishes between two forms of bringing forth. The first is directly associated with \textit{poeisis}, as it is the bringing forth into existence that the craftsperson and the poet (and anyone who produces things) practice. The products of this activity are brought forth by something else [\textit{en alloi}--"in another"], that is, the poet makes the poem, the craftsperson makes the wood carving, etc. The second is \textit{physis}, the bringing forth that occurs in nature, in which things such as flowers are brought forth in themselves [\textit{en heautoi}]. Both instances, however, fall into the category of \textit{poeisis} in the sense that something that was not present is made present.
Heidegger states the idea of bringing forth again in slightly different terms: "Bringing-forth brings out of concealment into un-concealment" (293). This image of poeisis as a kind of revealing leads him to yet another Greek word: aletheia, which literally means "unveiling" or "revealing." It is also the Greek word for "truth."

"But where have we strayed to?"

We should pause for a moment and get our bearings:

- Heidegger starts his essay with our everyday understanding of technology as instrumentality, as a way of getting things done.
- He asks what we mean by "instrumentality" and moves into a discussion of "cause."
- The examination of "cause," in turn, leads him to a discussion of poeisis as a bringing forth, a revealing of something that was concealed.
- At the close of the last section, he relates this bringing forth to the Greek word for "truth."

If we continue to pursue the question of the essence of technology, Heidegger now argues, we will come to see that technology is a kind of poeisis, a way of bringing forth or revealing—and, as such, is "the realm of truth" (294).

What does Heidegger mean by this? What does he gain from the seemingly radical and far-fetched association of technology and poetry? At this point in the essay, we begin to see that Heidegger has been developing an alternative way of thinking about technology, one that is not strictly bound to instrumentality. And as we will soon see, he is pointing out the similarities between the ways in which technology and poetry confront the world in order to contrast them later.

By now, it should come as no surprise that Heidegger turns again to etymology when he challenges us to "take seriously the simple question of what the word 'technology' means" (294).

Our word "technology" comes from the Greek technikon, which is related to the word techne. Heidegger makes two points about techne:

- In the sense of "technique," techne refers to both manufacturing (the techniques of shoemakers and printers, for example) and to the arts (the techniques of poets and graphic designers, for example). Techne is part of poeisis.
- In Greek thought from Plato on, the word is used in connection with the word episteme, from which we get the word "epistemology"—the branch of philosophy that examines how we know things. Techne, Heidegger concludes, is a kind of knowing. We might think of it as "expertise," which we generally understand as more than a set of practical skills. It is "know-how"; in Heidegger's words, "what is decisive in techne does not lie at all in making and manipulating nor in the using of means, but rather in the revealing mentioned before" (295).
If we understand technology as deriving from this concept of *techne*, Heidegger continues, then we will see that its essence lies not in the instrumental production of goods or manipulation of materials, but in "revealing." Remember that Heidegger has said something similar about the silversmith, who, through his *techne*, brings together the form and matter of the chalice within the idea of "challiceness" to reveal the chalice that has been "on its way" to existence.

At this point, Heidegger anticipates an objection to his representation of modern technology as "a mode of revealing."

"In opposition to this definition of the essential domain of technology..."

Is it valid to go all the way back to Greek philosophy and to apply its concepts to modern technology? Even the example of the chalice might seem irrelevant to a discussion of a technological age in which the virtually all of our silversmith's work can be performed by a machine. One of the differences, we might assume, is that modern technology is based on modern physics. Heidegger very quickly shows that this objection misses the point: the development of the physical sciences has been so dependent upon the technological development of devices for testing, measuring, etc., that science cannot be viewed as a "cause" or "origin" of technology.

The difference lies elsewhere, in modern technology's orientation to the world. Modern technology's mode of revealing is not *poeisis*.

The revealing that rules in modern technology is a challenging [Herausfordern], which puts to nature the unreasonable demand that it supply energy which can be extracted and stored as such. Heidegger's argument in the next few pages may seem quite familiar. It is, in a sense, an ecological argument. Heidegger views the difference between older forms of technology (the windmill, for example, which draws its energy from the wind but does not extract and store that energy) and modern technology which exploits and exhausts--in Heidegger's terms, "challenges"--our planet's resources.

Another example illustrates the difference between technology's "challenging forth" and poetry's "revealing." Heidegger uses the Rhine River, a potent symbol in German national culture, to show how technology transforms our orientation to the world. When we build hydroelectric dam on the river, the meaning of the river changes: it becomes an energy resource. Heidegger contrasts "the Rhine" viewed as a source of hydroelectric power and "the Rhine" as it appears in the work of the German poet Friedrich Höderlin, in which the river appears as the source of philosophical inspiration and cultural (and, for some readers, nationalistic) pride. It is interesting to note here that Heidegger extends his critique of technology to include the tourism industry, which in its own way transforms the natural world into raw materials, a source of profit.

It might help to recall at this point Heidegger's own poetic description of things being "on their way into arrival." The silver chalice "arrives" when the silversmith's work brings it "out of concealment." Before, it was only potentially a chalice; in the work of the smith, that potentiality is realized and the chalice is "revealed."
Modern technology, Heidegger has told us, also reveals. But its revealing is different from that of the older crafts. To explain this difference more fully, Heidegger introduces the idea of the "standing reserve."

"Standing reserve" is closely related to the idea of "instrumentality" with which the essay begins. Technology's instrumental orientation to the world transforms the world into "standing reserve." We might say that for technology, nothing in the world is "good" in and of itself, but only "good for" something. In the grip of technology, things no longer get to "arrive." The airplane, for example, has no meaning or value in and of itself; it is merely a means of transportation and its value to humanity is completely tied to its being at humanity's disposal.

To a certain extent, Heidegger argues, technology transforms humanity itself into standing-reserve. The forester, for example, is at the mercy of the paper industry, which in turn is at the mercy of the print industry, which in turn transforms the reading public into a source of its own profits. He also notes that our use of the expression "human resources" aligns human beings with raw materials such as coal or petroleum.

But because humanity is, as it were, in the "driver's seat" of technological advances, humanity never completely becomes mere raw material. By the same token, nature and nature's mode of revealing never fall completely under human control. Even though humanity has now acquired the capacity to destroy nature utterly (Heidegger does not omit a reference to atomic energy), the natural world reveals itself to human beings on its own terms. Humanity doesn't directly control the formation of coal deposits or the accumulation of nitrogen in the soil; we can only control the way we orient ourselves, our thinking and our actions, in relation to such resources.

Heidegger goes on to describe how this fundamental relationship between humanity and the world gives rise to a particular human orientation to the world, an orientation or attitude he calls enframing.

"We dare to use this word in a sense that has been thoroughly unfamiliar up to now..."

The German word *Gestell* has a number of meanings, some of which Heidegger mentions: rack, skeleton--the basic sense is of an armature or framework. Heidegger develops a new application of this term to describe how human beings have come to relate to the natural world.

Heidegger makes a brief detour here to justify his coining of a new term from an everyday word. He returns to the Greek word *eidos*, familiar to us from the example of the chalice, and explains how Plato redefined this word. *Eidos* originally designated the outward, visible appearance of an object; Plato, however, uses the word to mean the abstract, universal essence of that object: the "chaliceness" of the chalice is the *eidos*. From Plato's redefinition comes our word "idea." Heidegger's use of *Gestell*, or "enframing," follows a similar path: he takes a word meaning something concrete (a bookshelf, for example), and uses it to designate something abstract.

We often hear people criticized for wanting to "put everything into boxes." This expression usually means that a person thinks uncreatively, narrowly, with too high a regard for established
categories. The "frame" metaphor in Heidegger's concept of "enframing" corresponds to these "boxes," but for Heidegger, all of us have a tendency to think in this way.

We noted before that nature reveals itself to us in its own terms, and all that humanity can directly control is its orientation to the natural world. We should think of "nature" here in the broadest sense, as the entire realm of the non-human--but also including such things as our physical bodies, over which we have only limited control. What characterizes the essence of modern technology, for Heidegger, is the human impulse to put the world "into boxes," to enclose all of our experiences of the world within categories of understanding--mathematical equations, physical laws, sets of classifications--that we can control.

When Heidegger states that "the essence of technology is by no means anything technological," he means that technology's driving force is not located in machines themselves, nor even in the various human activities that are associated with modern modes of production. In his example of the automobile, the parts the make up the machine as well as the labor of the factory workers all belong to technology, but are not its essence. The "frame of mind" that views the world--its reserves of metal ore, its chemical structures, its human population--as raw materials for the production of automobiles approaches more closely what Heidegger means by the essence of technology. Heidegger's argument, however, is more far-reaching. He claims that enframing stems from the human drive for a "precise" and "scientific" knowledge of the world.

Heidegger now sets out to place technology within the history of the modern sciences. He makes the remarkable suggestion that in at least one sense modern technology comes before the development of modern physics and actually shapes that development. This claim will make sense to us if we remember that for Heidegger the essence of technology is that orientation to the world he calls "enframing." Insofar as the human drive for a precise, controllable knowledge of the natural world paves the way for modern physics, we can say that "enframing," and thus the essence of modern technology, precedes and determines the development of modern science.

Where does this enframing tendency of human thought begin? Heidegger does not answer this question here, but rather describes the philosophical context in which that question can be asked. For Heidegger, philosophy is "the painstaking effort to think through still more primally what was primally thought" (303). His fascination for ancient philosophy and his interest in tracing back the meanings of words is, of course, closely related to his larger project of uncovering the "primal" significance of important concepts. For him, what is most primal is also the most enduring; the most fundamental concepts are those that will continue to shape the concepts that come after.

One of Heidegger's clearest statements of what he means by "enframing" appears in his discussion of the dilemma of modern physicists, who are discovering that that the physical world does not lend itself to measurement and observation as readily as they once thought. Physics, Heidegger argues, is bound to a particular way of looking at the world:

that nature reports itself in some way or other that is identifiable through calculation and that it remains orderable as a system of information. This system is then determined by a causality that has changed once again. (304)
The model of causality that shapes modern physics, Heidegger goes on to say, is neither the "original" Greek one of "ways of being responsible" nor the traditional one of the four *causa*, but a model of "numbers crunching" in which things exist and come into existence only insofar as they can be measured.

We often think of technology as the "application" of the discoveries of science. Much of the discipline of "Applied Physics" is devoted to the construction and testing of useful devices. Heidegger concludes this section by reminding us that the essence of technology *precedes* the historical emergence of both modern science and modern machine production. In that sense, we might view modern science as the "application" of enframing. But Heidegger has yet another question: what, exactly, is enframing?

"We are questioning concerning technology in order to bring to light our relationship to its essence. . ."

It is not enough, Heidegger tells us, to have identified enframing as the essence of modern technology. We need to determine how we, as human beings, stand in relation to technology.

Throughout the essay, Heidegger writes as if humanity's "enframing" orientation to the world were an inevitable outgrowth of the history of human consciousness. In this next section, he emphasizes this point, stating that the question about how we are to relate to technology always comes "too late," since we are already caught up in an enframing view of nature as much as we are caught up in the concrete realities of technological development. We can, however, gain some perspective on our own orientation to the world, and thus achieve a perspective on technology.

What comes next is crucial for Heidegger's argument. Heidegger will characterize how human history is related to the historical development of technology, and he will begin to suggest how humanity might come into the "free relationship to technology"--which is, remember, the aim of his essay.

He approaches the subject by way of a play on words: *Geschichte*, the German word for "history," and *Geschick*, the word for "destiny," derived from the verb *schicken*, "to send." The human drive to obtain a quantifiable and controllable knowledge of the world "sends" humanity on the way to an orientation that views the world as a set of raw materials, as "standing-reserve," culminating in modern technology. From the primal relationship in which the physical world reveals itself to humanity on its own terms, humanity moves into an enframing relationship with the world. Within this relationship, however, the earlier relationship is maintained: humanity is still experiencing the world as the world reveals itself.

Because enframing does not utterly change humanity's connection to the world, there is room, even within enframing, for a different--we might say "renewed"--orientation to the world. It is not exactly right to speak of enframing as an inevitable development of humanity's interaction with the world--Heidegger cautions against a fatalistic view of technology's incursion into our lives. We can neither throw up our hands in the face of the problems brought on by technology,
nor, as Heidegger writes, can we a "rebel helplessly against it and curse it as the work of the devil" (307).

Once we realize that our own orientation to the world is the essence of technology, once we "open ourselves," in Heidegger's words, to this essence, we find an opportunity to establish a free relationship to technology. We have a choice, which Heidegger characterizes this way:

- Humanity can continue on its path of enframing, of "pushing forward nothing but what is revealed in ordering," and structure its life according to the rules and values of this orientation. Heidegger seems here to be invoking an image of a technological dystopia, of the kind we see in films such as Fritz Lang's *Metropolis* or Terry Gillian's *Brazil*.

which would cancel out the other possibility:

- Humanity can come to realize that it, too, is "on its way" to an arrival, and that only by re-orienting itself to the way in which nature reveals itself can humanity establish a relationship with the world that is not ultimately self-destructive.

What Heidegger views as the *danger* associated with technology is not so much the direct effects of mechanization. It might be easiest to characterize Heidegger's sense of the danger as a threat to humanity's "spiritual" life, but we should be careful not to associate with Heidegger's thought too many assumptions about "spirituality" in the sense of traditional religions (in spite of the fact that Heidegger's early training was in theology, a field in which he maintained a life-long interest). Heidegger's description of this danger has four main elements:

- In continuing on the path of enframing, humanity will eventually reach a point at which the human, too, becomes only so much "standing-reserve."
- Humanity's overinflated sense of its power over the natural world will result in humanity's coming to believe that humanity has control over all existence.
- This excessive pride leads ultimately to the "delusion" that humanity encounters itself and only itself everywhere it looks--a kind of narcissism at the species level.
- Finally, such an orientation to the world will blind humanity to the ways in which the world reveals itself. In spite of (in fact, because of) the entire set of scientific apparatuses and theories which are meant to guarantee our precise knowledge of our world, we will miss the truth of what the world is.

Heidegger's own words serve as a clear summary of this section (I have changed the translator's "man" to "humanity" throughout):

The threat to humanity does not come in the first instance from the potentially lethal machines and apparatuses of technology. The actual threat has already afflicted humanity in its essence. The rule of enframing threatens humanity with the possibility that it could be denied to him to enter into a more original revealing and hence to experience the call of a more primal truth. (309)

"But where danger is, grows
The saving power also."
Heidegger once again quotes the poet Friedrich Hölderlin, finding in these lines from the poem "Patmos" a formulation of the paradox he wants to describe: within the "supreme danger" of humanity's enframing orientation to the world lies the potential of a rescue from that very danger.

To help us to understand this paradox, Heidegger turns our attention to the meaning of "essence." He takes us through the traditional philosophical sense of "essence": it means "what" [in Latin, quid] something is. It names a genus, a class of things that are all the same kind of thing. All trees, for example, have "treeness" in common; "treeness" is their essence. From their inquiries into essence, the ancient Greek philosophers developed the concept of eidos, which we have already encountered in the example of the chalice.

This traditional understanding of essence, however, does not apply to modern technology. For Plato and Aristotle, the essence is what "remains permanently," what outlasts any particular manifestation of a thing (312). Heidegger turns to the German language to connect the verb wesen "to develop" (not often used in modern German) to the verb währen "to endure." Here again, Heidegger trying to "get behind" the assumptions and established formulations that shape traditional philosophical thinking. The model of essence as a "genus" does not adequately represent the relationship between the essence of a thing and the thing as it appears before us.

If enframing, as the essence of technology, cannot be thought of as a category to which all technological things belong, how are we supposed to think of it? At this point Heidegger turns to move head-on into the paradox. He draws upon the German writer Johann Wolfgang von Goethe--another thinker who loved to play with words--who in one of his novels joins the words fortwählen "to endure permanently" and gewähren "to grant." Heidegger wants to connect the concept of "enduring"--a quality of essence in the traditional model of essence--and "granting," which is Heidegger's new contribution to the model.

Earlier in this Guide, I mentioned that the idea of "giving" is crucial in Heidegger's work, and that the phrase "to be" is, in German, es gibt--literally, "it gives." If we return for a moment to the example of chalice, we can begin understand Heidegger's reasons for selecting this particular object for his illustration. In the Christian tradition in which Heidegger is situated, the communion chalice is used to make an offering: the priest or minister offers the communion wine to the congregation in the chalice, and the wine itself symbolizes Christ's offering of his life for humanity. Heidegger takes this image and applies it to all existence. The world "gives" itself to us insofar as it reveals and opens itself to us. Our response to this "gift," which Heidegger has described as "enframing," is at once a grave danger (our instrumental, exploitative, blind orientation to the world sets us on a self-destructive course) and an opportunity to see ourselves as a part of the coming-into-being, the revealing, and the "granting" of the world.

Furthermore, since humanity is, as we have said, "in the driver's seat" of technology, we must realize that our capacity to manipulate nature entails a solemn responsibility to "watch over" nature. Again, we can easily see Heidegger's argument in terms of today's environmental movement, but we need to remember that Heidegger is not simply speaking of nature in the sense usually assumed by environmentalists. Everything that exists must be cared for--
humanity's responsibility is to care for Being itself. It would also be a simplification of Heidegger's argument to associate it too directly with the anti-nuclear movement, but the specter of the total devastation of the planet does bring home the gravity of Heidegger's concerns. In the question concerning technology, everything is at stake.

Heidegger pauses here to sum up the major points of his argument before moving on to his conclusion:

- We tend to think of technology as an instrument, a means of getting things done. This definition, however, misses the actual essence of technology, and tends to make us think that by making the technology better--better able to "get things done"--we will master technology and solve the problems that accompany it.
- This instrumental way of thinkings stems from our assumptions about causality. If we come to understand modes of causality as ways of being responsible for the arrival of things into existence, we can begin to understand that the essence of technology has to do with the way we are oriented to the coming-into-existence, or the "revealing" of the world.
- Humanity's orientation to the world takes the form of an enframing which views the world only as "standing-reserve," a source of raw materials. In this enframing, however, lies the potential for another orientation.
- Enframing is the essence of technology. Enframing is ambiguous, in that contains two possibilities:
  - It is a danger that sets man on a destructive and self-destructive course. "On the one hand, enframing challenges forth into the frenziedness of ordering that blocks every view into the coming-to-pass of revealing and so radically endangers the relation to the essence of truth" (314)
  - At the same time, it is a "saving power" and and opportunity: humanity's enframing orientation to the world makes clear the responsibility of human beings to the world. If we reflect upon the enframing as the essence of technology, we will find not only that we are a part of the world, but that the world "needs" us to care for it, that humanity "is needed and used for the safekeeping of the essence of truth" (314).

Heidegger now moves to the conclusion of his essay, in which he will try to clarify the relationship between these two opposing orientations contained within enframing.

"The irresistability of ordering and the restraint of the saving power draw past each other like the paths of two stars in the course of the heavens. . ."

The danger of technology's essence and the saving power inherent in it are joined, Heidegger tells us, in the way stars are joined in a constellation: part of a whole, but separate entities. Enclosed as we are within our enframing orientation to the world, what can we do to save ourselves from the consequences of enframing? How can we nurture an alternative way of looking at things that will help us to change the ways of thinking that drive technology and thus to evade some of the horrific dangers that inhere in technology?
Against an orientation that investigates all aspects of the world and assumes that the world can be grasped and controlled through measurement and categorization, Heidegger upholds an alternative: art. He takes us back to a moment in the history of the West before the onset of enframing, back again to ancient Greece, where the concept of techne--which, as we have seen, is the source of our word "technology"--included both instrumentality and the fine arts, that is, poiesis. Heidegger imagines a classical Greece in which art was not a separate function within society, but unifying force that brought together religious life, political life, and social life. The art of ancient Greek culture, according to Heidegger, expressed humanity's sense of connectedness with all Being. Art was a kind of "piety;" it was the outgrowth of humanity's care-in the sense of "stewardship"--of all existence.

In our own time, Heidegger suggests, the paradox of how "enframing" can hold within it a saving power can be resolved by viewing the artistic or poetic orientation to the world as the alternative dimension of "enframing." The poet looks at the world in order to understand it, certainly, but this reflection does not seek to make the world into a "standing-reserve." For Heidegger, the poet takes the world "as it is," as it reveals itself--which, for Heidegger, is the world's "true" form (remember that the Greek word for truth, aletheia, literally means "revealing" or "unveiling").

"Truth" for Heidegger is a "revealing," the process of something "giving" or "showing" itself. Art is the realm in which this "granting" of the world is upheld. Art's relationship with the world is, in Heidegger's view, different from technology's in that art is less concerned with measuring, classifying, and exploiting the resources of the world than it is with "taking part" in the process of coming-to-being and revealing that characterize the existence.

We should not interpret Heidegger to be suggesting that we all go out and become artists, but rather that we incorporate more of the artist's and poet's vision into our own view of the world. By doing so, we can guard against the dangers of enframing, and enter into a "free"--constantly critical, constantly questioning--relationship with the technology that is constantly making new incursions into our lives.