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Technology

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It can be argued that technology is the most important topic of Heidegger's thought. The argument is this. Once he had found his voice as a philosopher, and from then on for the rest of his life, Heidegger tried to understand reality in its deepest and most crucial dimensions, and he did so in three ways: (a) he explored the nature of being; (b) he engaged in a conversation with the great Greek and German thinkers and poets; (c) he analyzed the human condition in the modern era.

These efforts proceeded unevenly and side by side until they converged on Heidegger's understanding of modern technology. Being, Heidegger found, changes through history and from the ground up, and beginning in pre-Socratic Greece, it passed through various epochs to take its present shape as the framework of technology. The great philosophers of the past Heidegger came to see as the framers (along with the artists and politicians) of the kind of reality that finally issued in technology. He saw the great poets, Hölderlin and Trakl in particular, as the witnesses and guardians of a world that was an alternative to technology. The technological culture is for Heidegger the decisive environment of humans in the late modern era, and their most fundamental welfare depends on their ability to pass through technology into another kind of world.

Given the importance of technology, it is perhaps surprising how little Heidegger wrote and lectured about it. It is, however, instructive to read the sequence of Heidegger's works as the gradual emergence of the problem of technology. To be able to do so, we need a preliminary understanding of what is meant by technology in Heidegger's thought.

As soon as technology became an explicit topic of his thought, Heidegger rejected the common notion of technology as an ensemble of artifacts and procedures that for better or worse is subject to human control. Specifically, Heidegger (1) did not think of technology as the use of tools that is as old and universal as the human race; he instead used technology in the sense of *modern* technology. More important still, Heidegger (2) denied that technology is a value-neutral instrument but thought of it as a radically fundamental and comprehensive phenomenon, something like the innermost character of modern culture and reality. Eventually Heidegger came to call the two senses of technology he rejected the anthropological and the instrumental senses. The conception of technology he was intent on illuminating he called the essence of technology.

To get this preliminary notion of Heidegger's concern right, we need to understand that Heidegger's search for the essence of technology is not what these days is called and criticized as essentialism. Critics take exception to essentialism because they think of it as the oppressive imposition of a dominant and timeless mold on what is in fact historically changing and multiple in its appearance. Heidegger obviously does not disagree with the claim that reality changes fundamentally over time. He, along with R. G. Collingwood and Michael Oakeshott, was a pioneer in criticizing the supposed timelessness of philosophical theories. He does, to be sure, oppose the other claim, i.e. that cultural phenomena are too many-sided to exhibit a definite character, and he denies a third claim, often associated with anti-essentialism, to the effect that what discernible shape a cultural phenomenon has is a social construction.

How did the phenomenon of technology become problematic for Heidegger? Martin Heidegger was born in rural and largely pre-technological circumstances. The world of his childhood and youth would have been readily understandable to a medieval peasant or a Roman soldier. It was, moreover, a deeply Catholic and petit bourgeois world. Being Catholic, it was culturally oppressed by the ruling and militant Protestantism of the recently founded German Empire; and even within Catholicism, he belonged to the orthodox party that in his hometown of Messkirch was temporarily overshadowed and repressed by the more affluent and liberal minority that dissented from the dogmas of the recently concluded Vatican Council. Heidegger's father was a sexton and a cooper, and had it not been for the support of the Catholic Church, young Martin would have remained confined to the world of small-town artisans. Thus it is well conceivable that Heidegger early on learned to be skeptical of forces that triumphantly gather power and affluence about themselves. Even so, though the mature Heidegger showed great affection for his native town and country, young Heidegger was chiefly concerned to rise above them. His early work in philosophy was marked by intelligence and ambition; it was also quite academic and conventional.

The philosopher who helped Heidegger to find his voice and vision was Edmund Husserl. His phenomenology promised the best of two worlds: realism and relevance, the turn from abstract and academic subjects "to the things themselves"; and rigor and radicalism, a methodology that would be as compelling and trenchant as that of the sciences. The first of these features taught Heidegger to pay attention to the real world, to analyze it, and to capture its crucial features. Heidegger remained a phenomenologist throughout his life, but it was the initial and fundamental, not to say the lowest, form of Husserlian description and analysis – the direct phenomenology, trained on the character of things – that Heidegger practiced. He refused to follow Husserl's ascent to ever more abstract and complicated modes of inquiry. As for radical rigor, Heidegger never felt the attraction of the mathematical or scientific model. Rigor came to mean depth rather than precision. Thus technology was bound to come into view as a phenomenon both concrete and fundamental.

Being and Time (1927) was the celebrated result though technology so far remained an implicit concern. The notion of being was Heidegger's oriflamme of radicality, and it remained so for the rest of his life. Never defined or rigorously explained, it was Heidegger's spur to reach beyond all prejudices, conventions, and received wisdoms, successfully sometimes, more often not. *Being and Time* failed to grasp technology directly for two reasons. First, it was still committed to the transcendental ambition of

uncovering universal conditions of existence. Thus it failed to focus on technology as a modern phenomenon. Second, the finished and published part (two-thirds of the projected work) was preparatory and dealt with human being as the place where being becomes an issue; it did not address being itself. Thus *Being and Time* missed technology as the way being reveals itself in the modern era.

Yet without Heidegger realizing it, *Being and Time* anticipates his philosophy of technology in two ways. First, in discussing the normal and inauthentic condition of human existence – what Heidegger called *the they* (*das Man*) – *Being and Time* reveals less a timeless condition of humans than the debilities of life in the culture of technology (SZ: 114–30). Of the three features that characterize the they, talk (*das Gerede*) is the first. It is a way of knowing and speaking that has lost touch with reality and has become what today we would call public opinion. Heidegger, in less guarded discourse, made the technological framework of such knowledge explicit in his lecture *Fundamental Concepts*, given in the summer semester of 1941:

> That people occasionally "read a book" is a Philistine kind of accounting, quite aside from the fact that we have to ask whether people today who often get their "education" only from lists, magazines, radio reports, and movie theaters, whether such discombobulated, purely American individuals still know and are able to know what it means "to read." (GA 51: 13–14)

Similarly, *curiosity* (*die Neugier*) is, as Heidegger puts it, the kind of "restlessness" and "distraction" that has truly come into its own in the information age. In a pre-modern setting, information is necessarily limited and anchored in the environment. It is only when the modern media push a "tendency toward deracination," as Heidegger has it, (SZ: 173), and when they provide a surfeit of information that news no longer engages us and does not have to engage us because as soon as we tire of one news story two others clamor for our attention. Heidegger noticed the resulting curiosity at a time when by contemporary standards the media were few in number and measured in their output.

Ambiguity (*die Zweideutigkeit*), finally, denotes the loss of authority in the way the world is presented to us and the fact that we no longer have to take responsibility for our views insofar as we constitute public opinion (SZ: 170–5). These losses presuppose a mediated world, one that is reported, interpreted, and tendentiously presented rather than one that addresses us in its own right, and they presuppose the anonymity of modern mass society where my vote and my responses to a poll are taken at face value.

The second way in which *Being and Time* implicitly adverts to technology is the discussion of what for Heidegger came to be the positive counterpart to the devastations of technology. It is a world that has depth and coherence and is centered and disclosed in some tangible thing. In *Being and Time* it is the shop whose context of concern and references is gathered in the tool (*das Zeug*) (SZ: 66–88), and it is, more generally, the coherent pre-technological world (SZ: 102–13), as is apparent from one of Heidegger's asides on the fate of familiarity and nearness: "Through radio, for instance, human being brings about a re-moval – yet to be determined in its existential significance – of the world by way of an expansion of the everyday environment" (SZ: 105). As if to bring out the implicit critique of technology, Heidegger amplified this passage in the 1976 edition so that it read: "expansion *and destruction* of the everyday world" (Heidegger 1979: 105, emphasis added).

Being and Time was published in 1927 after a fallow period of eleven years, and it quickly earned Heidegger wide discussion and renown. In 1928, he was appointed to Husserl's position in Freiburg and was able to return to his beloved native region. As we can see, however, from the lectures he gave in the next five years, Heidegger's mood and work were not happy.

Instead of reveling in the pleasures of the academic world that he had conquered and that had rewarded him so well, Heidegger became irritated with and contemptuous of the university and the professoriate. Particularly in philosophy he found the features of the they abundantly in evidence among his colleagues. He found them superficial, smart, smug, and busy. More importantly, Heidegger himself could not find a way of breaking through the conventional wisdom and of passing beyond *Being and Time*. Much of his lecturing was devoted to the analysis of Plato, Aristotle, and the German idealists in an effort to wrest from their writings the clues to productive and illuminating work. There were also efforts to push ahead, in the wake of *Being and Time*, with the exploration of concrete reality.

Heidegger's refusal to rest on his laurels and his tenacity in searching for he-was-not-sure-what were admirable, and his rising dissatisfaction with contemporary culture and his abiding interest in the Greek phenomenon of *techne* pointed forward to his philosophy of technology (GA 33; Feenberg forthcoming). Still, the substantive results as well as the publications of those five years (1928–33) were meager, and it must have been at least in part anger and frustration that made him reach for the rectorship of the University of Freiburg. His goal was, as we now know, to use Nazi power and ideology to promote his thought politically if not philosophically (Ott 1988).

Heidegger's involvement with the Nazi regime was a disaster from every point of view. It was a disaster morally most of all, made worse by the fact that, though it ended within less than a year, Heidegger never came forward with a frank acknowledgment of his implication and responsibility. It was a disaster personally; Heidegger eventually felt rejected and bitter, as he obliquely complained in one of his first lectures after his failed rectorship (GA 39: 136, 208).

Heidegger's alliance with the Nazis was a philosophical disaster because there was little of substance that he was able to propagate from the rector's pulpit. Beyond the deplorable avowals of chauvinism and allegiance to Hitler, all that Heidegger had to offer were the antonyms to the characteristics of the inauthentic they – resolve, dedication, discipline, service (GA 16: 107–17). Later he came to see the totalitarian character of National Socialism as "the encounter of planetary technology and modern humanity" (GA 40: 152) and the holocaust in particular as "the fabrication of corpses in gas chambers and annihilation camps" (GA 79: 27). Technology in Heidegger's sense was surely an ingredient of the holocaust. Its bureaucratic and mechanized features have been widely noted. But to mention Nazism and the holocaust only in connection with technology is to suggest, wrongly, that technology was the nearly sufficient condition of those disasters or to let, reprehensibly, an incidental feature overshadow the moral substance at issue. Heidegger must have sensed that the evil of fascism and racism sprang from depths more profound than those of technology. In one of his Bremen lectures he said: "What is inhuman and yet human is of course more evil and

fatal than a human being that would simply be a machine" (GA 79: 37). But he never referred this insight directly to the holocaust.

A new and constructive period in Heidegger's thought began in 1935 when he delivered his lecture on "The Origin of the Work of Art" (GA 5: 1–74). It turns directly to the question of how a world is disclosed in a tangible thing. The tool of *Being and Time* yields to the work of art, to the peasant's shoes in a Van Gogh painting, to the Roman fountain in C. F. Meyer's poem, and to the Greek temple. The essay is sometimes thought to mark "the turn" (*die Kehre*) in Heidegger's thought, the turn of attention from the human condition to the eloquence of reality. What degree of continuity there is in Heidegger's philosophy is a complex question. The 1935 essay, at any rate, resolves the ambiguity in the early Heidegger's writings between transcendental universalism and factual uniqueness and between human decisions and the inescapable givenness of one's situation.

In "The Origin" the unpredictable and fundamental changes of art reflect and, more, occasion like changes in the world entire. The work of art establishes the truth of an epoch, truth not in the formal sense of truth conditions but in the substantive sense of what is eminently and decisively true of a particular time. Epochal truth, moreover, essentially engages the artist and issues from the artist – a relation and notion of freedom that remains problematic in Heidegger's philosophy of technology.

The path that this essay breaks for the philosophy of technology is the possibility of grasping technology too as the truth of a particular epoch, i.e. of our time. More particularly, the truth and the world that the work of art opens up is the precursor of the kind of reality that Heidegger came to see as the salutary alternative to technology. He realized, however, as he indicates in a 1950 postscript, that in the modern era the work of art was no longer the tangible thing that could gather and center a world, far less establish the crucial dimensions of an epoch (GA 5: 67–70).

A year later, in 1936, Heidegger began to write down the investigations and reflections that ever more sharply delineated his philosophy of technology. They were concluded in 1938 and published in 1989 under the title of *Contributions to Philosophy* (*Of the Event*) (GA 65). It is now available in an English translation that can only be called unfortunate (Heidegger 1999). It bristles with neologisms where Heidegger for the most part uses regular German words. Where he does not, the modifications Heidegger makes remain close to common words. The deplorable neologisms needlessly move obstacles into the reader's path, and they expose Heidegger's thought to unwarranted ridicule (Blackburn 2000).

Heidegger was now able to close the gap between his interrogations of the history and philosophy of being and of the great figures of the Western tradition with his investigations of contemporary culture. Technology is seen as the outcome of metaphysics, the concentration on the structure and presentation of objects to the detriment of giving thought to the epochal contexts to which objects owe their fundamental character in the first place.

This sort of obliviousness takes on a characteristic shape in technology. It is the unquestionable conviction that everything there is exists for human *machination*, Heidegger's early term for the essence of technology. It leads to a leveling down of traditions and landmarks and a pervasive regularity that is the more distressing the more it is becoming concealed. But all this springs from the character of the epoch we live in. It is neither a social construction nor the fault of individuals. Alongside the analysis of technology, the eventual counter to the distress of technology emerges as well in the *Contributions*. The work of art is replaced by the simplicity of an inconspicuous thing, the wine jug. The world of earth and sky becomes the fourfold of earth and sky, mortals and divinities.

In addition to providing new insights into technology, *Contribution* also reveals how Heidegger reached them and what experiences he drew on in articulating them. By 1936, Heidegger had broken through the seemingly unyielding walls of the post *Being and Time*, pre-Nazi period. Thoughts, discoveries, and hunches rained down on the page, fixed for the moment, taken up and elaborated in later passages. Heidegger used diagrams to clarify the developments and connections he saw – evidence that conceptual rigor continued to underlie a kind of discourse that could be dense and mystifying (GA 65: 130, 138, 308, 310).

The major impetus for Heidegger's mature philosophy, as the *Contributions* show, is twofold: intense distress at the character of modern culture and affection for the rural culture of his native region. *Distress* (*die Not*) is one of the key words of the *Contributions* and more especially the distress at the general incapacity for the recognition of how distressing times really were. In a section titled "Machination and Experience," Heidegger says this about these two phenomena:

> It lies in the nature of both of these not to know any limits and above all no embarrassment and finally no shyness. Most remote to them is the strength of safekeeping. Instead there is exaggeration and excessive shouting and blind mere shouting-at in which shouting one shouts at oneself and diverts oneself from how reality is being hollowed out. (GA 65: 131)

Needless to say, this was not the picture of the world that the Nazis promoted in the mid-1930s, but neither is Heidegger's distress aimed squarely at the tightening grip of fascism and anti-Semitism.

Just as the Heidegger of the *Contributions* is more openly anguished about the rise of the technological culture than in the philosophical writings he published, so he is less guarded in acknowledging the inspiration of rural life for his thought. Thus he likens his work to that of a farmer:

> How then does the thinker save the truth of beyng [*des Seyns*, Heidegger's archaic spelling of *being*] if not in the heavy slowness of the walk of his questioning steps and their fixed sequence? Inconspicuously, as on the lonely field under the big sky, the sower with his heavy, halting, ever composed step walks along the furrows and with the cast of his arm measures and shapes the space of all growth and ripening. (GA 65: 19)

Even poetry and philosophy attain their force under the aegis of country and nature. At least in part, Hölderlin became such a crucial inspiration and confirmation for Heidegger because he was born in the same region as Heidegger and drew on some of the same local sources. This is how Heidegger sees the significance of Hölderlin for his work: "What supports in all this unsupported questioning after the truth of beyng the

conjecture that the thrust of beyng may have cast a first tremor into our history? Once more just one thing: that Hölderlin had to become the sayer that he is" (GA 65: 485).

The interpretations, too, of the great figures and themes of philosophy are assimilated to natural landmarks. Heidegger titles one of the sections of *Contributions* "The Great Philosophies" and says they:

> are soaring mountains, unclimbed and unclimbable. But they lend the land its highest points and point to its bedrock. They stand as markers and constitute the circle of visibility; they yield vision and concealment. When are mountains what they are to be? Certainly not when supposedly we have hiked and climbed all over them. Only when they truly stand there for us and for the land. (GA 65: 187)

We get further insight into the emergence of technology at the center of Heidegger's thought in the "Conversations on a Country Road" of 1944–5, unpublished during Heidegger's lifetime. It is a conversation of a Researcher (a physicist), a Scholar (a traditional philosopher), and a Sage (the voice of Heidegger; Heidegger mitigates the implied presumption by pointing out that, in German, "sage" and "one who points, a pointer" are homonyms: *ein Weiser*; GA 77: 84–5). It is a highly stylized dialogue, and whether any of it stemmed from actual exchanges we will not know until we have an exhaustive biography of Heidegger.

As in other writings of the period, there is an eerie silence about the persecutions by the Nazis and the destruction and despair of the concluding war. Heidegger is concerned with what he must have considered more profound problems. The ostensible issue is the resumption of a discussion that revolved about Kant's distinction between intuition and thought. The Researcher assimilates thought to theory and intuition to experiment, and he gives primacy to theory, whereupon the Sage stresses the crucial role of the technology of experiments, and within four pages the dispute is about whether technology is applied science or science is applied technology.

What may surprise one who has only read the writings Heidegger published himself is the frank and direct way in which the Researcher raises, against the Sage, the questions and objections that would leap to the mind of an analytic philosopher sitting still for Heidegger's sort of discourse, such as when the Researcher says: "And so, generally speaking, technology is a particular kind of thinking, namely the sort of thinking that concerns itself with the practical application of the theoretical sciences for the purpose of dominating and exploiting nature. Hence we physicists commonly say that technology is nothing but applied physics" (GA 77: 6). For the Sage and for Heidegger technology is prior to science in the sense that the objectifying spirit of technology, understood as the temperament of the modern era, underlies both science and technology, the latter taken in the specific sense of the Researcher. Here too the Researcher replies in just the way a scientific realist would:

> But you do not mean to say that nature is violated in physics? Nature, and only nature as it manifests itself to us, has the last word in physics. It is among the overwhelming experiences of a scientist that nature often answers in a way that is different from what the questions that the researcher addresses to it would have us expect. (GA 77: 17)

This is a plausible answer and suggests that the problem with the scientific picture of nature is not that it violates or manipulates nature – in fact it depicts nature as nature reveals itself. The problem instead is that the scientific view, due to its prominence, obscures the moral and poetical force of nature. It follows that technology in its broad epochal sense is the temperament of an era that enables humans to grasp the lawful mathematical structure of nature and that gives that structure a prominent, perhaps an unduly important, place in its culture. That view is surely compatible with the scientific realism we find in contemporary mainstream philosophy.

In his later writings on technology, Heidegger draws a distinction that roughly parallels the senses of technology that divide the Sage from the Researcher. Heidegger calls the broader and epochal sense "the essence of technology" and keeps "technology" for the narrower industrial and mechanical sense. However, while the way he characterizes the essence of technology illuminates well what we mean by technology in the narrow sense, it obscures, if it does not distort, the realist sense of science and comes closer to the instrumentalist conception the Researcher complains about.

Finally, the *Conversations on a Country Road* reveal Heidegger's misgivings about the attitude of patience and gratitude that later become a canonical part of his thinking and a necessary condition for the advent of the power that can save us from the devastations of technology. Notably, these reservations surface in the *Conversations* before the "thinking is thanking" (GA 77: 100) suggestion was published and became subject to public criticism. Consider this exchange:

Researcher: What in the world am I supposed to do?
Scholar: That's my question as well.
Sage: We are not supposed to do anything but wait.
Scholar: That's poor consolation.
Sage: Poor or not, we are not to expect solace either, which is what we do even when we merely slip into despair.
Researcher: What then are we supposed to wait for? And where should we wait? I hardly know any more where I am and who I am. (GA 77: 110)

Outwardly Heidegger's lectures between 1935 and 1944 do not seem different from those between 1928 and 1933. They too are devoted to the great topics and thinkers of Greek and German philosophy. But they show a renewed sense of purpose and direction, and technology is increasingly, if always briefly, the target on which the reflections converge.

The end of the war brought Heidegger personal distress and disgrace, and his career as a philosopher might have come to an inglorious end had it not been for French philosophers who sought Heidegger's acquaintance and conversation. One of them, Jean Beaufret, provoked Heidegger's first postwar publication, the *Letter on Humanism*, written in the autumn of 1946 and published in 1947 (GA 9). Heidegger's concern was to regain philosophical standing, to disavow nationalism, to recognize humanism, and to acknowledge ethics, and yet to insist on the tentative and superficial character of these conventional worries. Beneath them all he saw a profound and pervasive homelessness that was to be traced to technology, traced in turn to "the history of metaphysics" (GA 9: 88).

Heidegger made his first public appearance on December 1, 1949, at the unlikely venue of a gentlemen's club in Bremen, founded in 1783. Under the overall title of *Insight into What Is* (GA 79), he presented the fruits of his thinking since 1935 in four lectures:

1 The Thing (*Das Ding*).
2 The Framework (*Das Ge-stell*).
3 The Danger (*Die Gefahr*).
4 The Turning (*Die Kehre*).

These presentations contained the substance of Heidegger's mature philosophy, and although Heidegger continued to think, write, and speak for another twenty-seven years, little regarding technology was added. As before, his writings on being, thinking, language, poetry, and some of his great predecessors by far outweighed in quantity what he said and published on technology after the war, and it is this massive material that has chiefly concerned the Heideggerians and postmodernists. But his enduring legacy may well be his insights into the framework of technology and his reminders of the fourfold nature of the thing.

Remarkably, Heidegger seems to have been unsure of the cohesiveness and persuasiveness of the Bremen lectures, for he never had them published as a whole during his lifetime. In 1954, he published the second lecture under the title "The Question Concerning Technology" and the first under the same title, "The Thing," in a collection of essays (GA 7: 9–40, 157–79). However, these two Bremen lectures were grouped in different parts of the anthology and out of sequence, and without any indication of their original connection. "The Question Concerning Technology" was rendered in English in 1977 in an unfortunate translation that has given us the neologisms of "enframing" (*das Gestell*, better the framework) and "standing-reserve" (*der Bestand*, better resources) (Heidegger 1977: 3–35).

The essay falls into roughly eight parts, or perhaps we should say *steps*, for Heidegger begins by portraying his investigation of technology as the building of a path. Next he turns to the common understanding of technology as a neutral instrument under the control of humans. The neutral sense is both instrumental and anthropological. It is correct, but not true, i.e. not revealing. He proposes to get to the true sense via the correct sense.

The third part, then, analyses the notion of instrumentality to reach the truth or the essence of technology. Instrumentality is traced to causality; causality is explicated in its fourfold Aristotelian mode – the material cause in Heidegger's example is silver, the formal cause is the shape of a sacrificial bowl, the final form or purpose is worship, and the efficient cause is the silversmith. Heidegger describes the process of making the bowl to have us realize that the silversmith does not so much produce the bowl as he brings it forward into the open. His work is a disclosure or revelation.

Having argued that revelation underlies production, Heidegger, in his fourth step, invites us to think of technology as a kind of revealing as well. He describes the particular mode of disclosure that is technology and, very importantly, the revealing that *modern* technology constitutes. The description articulates the five key terms of his philosophy of technology. Modern technology *challenges* (*herausfordern*) nature to yield its treasures to humans. Next, technology *positions* (*stellen*) and *orders* (*bestellen*) the yields of nature so that they are available and disposable to humans. Whatever is so positioned and ordered becomes a *resource* (*der Bestand*). Finally, Heidegger gathers this entire way of treating and disclosing nature under the title of *the framework* (*das Gestell*) – the essence of technology.

Heidegger's fifth part discusses the relation of modern science to the essence of technology. He restates the point made in the *Conversations* that (the essence of) technology is prior to science, and he does so without the earlier scruples about the strictly disclosive character of science. Instead he claims for the sciences the aggressive approach to nature that goes well with technology, but poorly with science.

The sixth step takes Heidegger to the framework of technology as destiny and to the question of how humans are involved in the dispensation of that framework. Destiny is neither an inevitable fate that descends on humanity, Heidegger claims, nor the result of human willing. Disclosure of destiny and human freedom are one and the same.

There is, however, a twofold danger to destiny – the concern of the seventh step. One is the danger that human being reduces itself to a resource and in so appearing to have taken total control encounters nothing any more but itself. The other is the danger that the disclosure of the framework forecloses every other dispensation and conceals that it too is a disclosure.

Still, the framework *is* a disclosure. It involves human being. And it therefore harbors the possibility of a saving power. This is the eighth and concluding step of the essay. But given the possibility of saving, Heidegger asks more directly: "How can this happen?" (GA 7: 37). In the reply, there is a scarcely recognizable reference to "The Thing": "Here and now and in what is inconspicuous" (*im Geringen*) (GA 7: 37). The inconspicuous presence of the thing is the concluding point of the essay on "The Thing." But this trace of the thing in the technology essay is all but obscured by the discussion of art that Heidegger thinks is our best hope, since art is both akin to the essence of technology and "fundamentally different" from it (GA 7: 39).

In 1962, Heidegger once more published "The Question Concerning Technology," this time under separate cover along with the fourth Bremen lecture, "The Turn." In the prefatory remark he acknowledges their origin in the Bremen lectures. Of "The Question" he says that it is an enlarged version of the second lecture. The fourth lecture, "The Turn," is unchanged, he says further. We can now see that his last remark is accurate. "The Question," however, though enlarged in some parts (parts one and two, for example), is quite different from "The Framework" (*das Ge-Stell*) in the Bremen version.

"The Question" is entirely rewritten. There are only a few verbatim sentences left from "The Framework." Compared with "The Framework," "The Question" is less immediate, less impassioned, less involved in its terminology, and innocent of all the direct references to "The Thing." Heidegger must have been concerned to publish a measured and simplified analysis of technology that was not susceptible to easy dismissal on the grounds that his presentation of technology was hopelessly mixed up with a nostalgic invocation of a thing and a world that were irrevocably past. Nor did he want to be accused of cultural prejudice and partisanship.

To speak in more detail, Heidegger added the notion of the path of thinking and of ancient making as revealing to disarm the reader of what Heidegger took to be unhelpful beliefs in cogent argument and in making as manufacturing. In the analysis

of technology he dropped terms such as *circulation* and *rotation*, which had been parts of the framework in the Bremen lecture, and *machination* and *machinery*, which were remnants of the older terminology in *Contributions* (GA 79: 29, 34, 35, 38). Distrusting his description of "The Thing," he turned instead to art as a possible turning point, although he had, in the postscript to "The Origin of the Work of Art," agreed with Hegel that the vigor of art had passed and was lost (GA 5: 67–70).

In the prefatory remark to the 1962 edition, Heidegger claimed that the Bremen lecture "The Danger" "remains unpublished" (Heidegger 1962: 3). But the crucial part was in fact incorporated in "The Question." What Heidegger tellingly omitted was the danger that lay in the "refusal of world" that comes to pass "as the neglect of the thing" (GA 79: 51). It is not only the unwelcome mention of the thing that made Heidegger think better of including this part. The German for "neglect," *die Verwahrlosung*, derives from a verb that means "to run down," "to mistreat," "to make shabby." This was the kind of anger and distress that Heidegger wanted to avoid (although here, as in *Being and Time*, Heidegger, having introduced a damning vocable, immediately denies that it carries a "value judgment") (GA 79: 47).

The same concern to move away from involvement in the issues of the day and the promptings of the heart governed the transition from "The Framework" to "The Question." Compare these two passages, both at the conclusion of a paragraph, the first from *The Bremen Lectures*, the second from "The Question." "Agriculture is now mechanized food industry, essentially the same thing as the production of corpses in gas chambers and annihilation camps, the same thing as the blockade and intentional starvation of countries, the same thing as the production of hydrogen bombs" (GA 79: 27). "Agriculture is now a mechanized food industry. Air is positioned to yield nitrogen, the ground to yield ore, the ore to yield, for example, uranium, this to yield nuclear energy that can be released for destruction or peaceful use" (GA 7: 18–19).

One has to respect Heidegger's decision to make his case for the essence of technology in the kind of judicious and even-minded manner that was least likely to be rejected because of incidental and subsidiary issues. But even in its more orderly version, the analysis of technology digresses and wanders. By the standards of reasoning that proceeds from premises and evidence via rigorous inferences to clear conclusions, "The Question" does not score very well (Feenberg forthcoming). To be told that his essay wanders might not have troubled Heidegger. He begins, after all, by characterizing the piece as a path rather than an argument.

The objection that "The Question" concludes with an unsatisfactory answer and that the thing in his eminent sense rather than art should be the reply to the danger of technology might have mattered more to Heidegger. In fact, eight years after the first publication of "The Question," he added the concluding Bremen lecture, "The Turn," to the reprinting of "The Question." The last Bremen lecture asserts a close connection between the framework of technology and the fourfold of the thing (and Heidegger inserted a direct reference to "The Thing" in "The Turn"; Heidegger 1962: 42).

But that connection raises a problem that goes deeper than the economy of presentation and pedagogy. In *The Bremen Lectures*, "The Thing" comes first, and "The Framework" follows as the subversion of the thing and its world. The proposition that the thing in turn follows the framework as the response to the danger of technology is asserted but not credibly disclosed (Feenberg forthcoming). Whether the case can be made is a question that the philosophy of technology, inspired by Heidegger, has paid little attention to. To the contrary, the passionate engagement and the attention to topical issues that the older Heidegger had abandoned have in fact been embraced at least by much of American philosophy of technology – independently of Heidegger, perhaps, since the *Contributions* and *The Bremen Lectures* were not published until 1989 and 1994.

There are additional problems in "The Question." A second problem concerns the relation of the disclosure of the framework and the involvement of humanity. Were humans free to participate in this revelation or not? Clearly Heidegger intended a relation beyond the antinomy of libertarianism and determinism. But it is less than clear how an alternative position can be worked out on Heideggerian premises.

A third problem lies in the failure of the framework to shed any light on the attractiveness of technology. It is not enough to say it is the encompassing and pervasive culture and sweeps everything before it. Epochal changes come in different flavors, as curses and as blessings, as oppressions and as liberations. Heidegger, when talking about technology, addresses its aggressive and strenuous side. He says nothing about the pleasures of consumption, though, when talking about contemporary culture more generally, he does, and did so rather early, score the slackness and languor that are consequences of consumption (GA 29/30: 7, 32, 238, 240–1, 245, 426; GA 65: 61–2).

The fourth and final problem revolves about the technology – society relation. Even if the thing and its fourfold world turned out to be the fruitful counter and turning point for the problem of technology, we would still be left with the question of how this solution can be made socially and politically fruitful. There is a large gap between the profundity of Heidegger's thoughts on the thing and technology and the ailments that trouble us in the broad daylight of contemporary politics and culture.

The importance of Heidegger's philosophy of technology is threefold. Most importantly, he shows that technology is a phenomenon of deep roots, wide sweep, and radical effects. Thus he has inspired serious and painstaking work in the philosophy of technology. Second is his apt choice of examples. They are concrete, varied, and provocative and suggest investigations and arguments that Heidegger himself never took the time to pursue. Finally there is Heidegger's practice of capturing his insights in a firm and distinctive terminology. Good terminology prevents insights from evaporating and lends guidance to further exploration.

How influential has Heidegger's philosophy of technology been? The scholarly reception in the Anglo-American world has been slow and awkward at first and limited to this day (Borgmann and Mitcham 1987). As a cursory look at the *Philosopher's Index* or at cyberspace via a search engine shows, Heidegger is widely discussed today. But attention to his philosophy of technology has remained a small part of the overall interest in his work. However, his influence on American philosophy of technology, among the most vigorous schools in the world, has been significant. In a collection of essays on *American Philosophy of Technology* (Achterhuis 2001), Heidegger is easily the most frequently mentioned figure.

In the culture at large, Heidegger's involvement with the Nazis has been much more thoroughly discussed than his philosophy of technology. Thus Heidegger's attempt to protect the thrust of his thought by playing down and misrepresenting his participation in the Nazi movement proved counter-productive. Has there been any detectable

Heideggerian influence in the wider cultural conversation? Consider the work of Bill McKibben (2003). His work is widely known and his critique of technology as a pervasive and perilous force and his devotion to a grounded sort of life as an antidote is clearly congenial with Heidegger's thought. But McKibben never mentions Heidegger, and whether there is some indirect influence of Heidegger's is hard to say.

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