A Heideggerian Reflection on the Prospects of Technology

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Heidegger understands technology as an act of revealing rather than merely a human achievement. Within the modern era, technology represents the manner in which humans stand within and make manifest the open interplay and inter-relatedness that is world. The danger of this era is the extent to which everything has become available, accessible, and disposable to human manipulation, practically without limit. However, the very totalizing extent to which this is happening, and the forgetfulness that takes it all for granted, can also make us suddenly aware that everything, including world itself, is at risk; that we ourselves are at risk; that we are the danger. He calls for an attitude of releasement that handles world with a sense of receiving, and not just taking, a sense of thankfulness. Such a change could directly impact how we see ourselves and our responsibilities as we go about developing and using technologies.

It is often said that Heidegger’s later thinking represents a dramatic shift from his earlier concerns in Being and Time. However, while those latter reflections may seem quite different from the analysis in Being and Time, they actually build on the fundamental issues with which Heidegger was struggling beginning with Being and Time. I believe we can see this to be the case when we try to understand Heidegger’s thinking on the meaning of technology.

One of the significant contributions of Heidegger’s thinking in Being and Time was the manner in which he deflected the human subject, and subjectivity in general, from the central position it had been granted in western philosophy, especially after Descartes. Heidegger’s interpretation of the human as Being-in-the-World was not simply a factual statement about the location where humans were to be found. Rather, it represented an existential and metaphysical statement concerning the manner in which humans existed to begin with.

However, even in saying this, we must acknowledge that Heidegger’s approach should not be identified with traditional metaphysical thinking, which he claimed did not address the most fundamental questions regarding the meaning of Being. He believed that western metaphysics had already settled within a way of thinking that simply presumed objectivity—subjectivity as the most essential framework within which the meaning and being of persons and things were to be understood and dealt with. His own
thinking sought to penetrate beneath that frame of reference and address a more primal manner of being and belonging together of persons and things prior to such designation and definition. In doing so, he sought to overcome what metaphysics had become and recover its original and originating source by questioning Being itself as the relational context of inter-activity within which everything/everyone related prior to their being addressed as subjects and/or objects.

Being itself was not to be founded merely on the power of the thinking subject, especially identified with logic, which then represents the being of everything else as object. Rather, Heidegger sought to address Being as a more primal power of emerging, out of which arises all we might then identify as subjects, objects, etc. To ask the fundamental question concerning the meaning of Being was to penetrate into the realm of inter-relatedness itself, the manner of inter-acting and coming to presence for one another before being found as persons and/or things. It was to question the process in which the human comes to bring forth a world and settle upon the earth depending on the manner of its essential relations to things as such and to things as a whole.¹

This understanding is significant for Heidegger's reflections concerning technology. He addresses technology not as an object for analysis, but as a way in which Being has come to have meaning in our time in light of our manner of dealing with things. Technology represents the manner of inter-acting in terms of which humans encounter everything within the world as object, to be taken up, used, disposed of at will. The terms of this framework are so taken for granted as the foundation for the meaning of the being of both humans and things that we do not even acknowledge that this represents a manner of being and relating within the world that does have a history, both in how we think and act. Heidegger believes this history has fateful consequences for our time; and that is something we need to think about and question. His reflections are an invitation for us to think, not about technology specifically, but more importantly, on who we are becoming and what everything within our world is coming to mean when the framework cast by technology rules.

In his own attempt to get to the fundamental question in Being and Time, Heidegger used the term Dasein (being-there) in reference to human existing. In doing so, he was trying to capture the manner in which we found ourselves existing not as independent subjects, but as always and already belonging along with everything else that together forms the
inter-relational network that is world. To be within-the-world meant not just where, but rather how we existed: as essentially belonging within the interplay that was the world. His description of the human as inauthentic was not a moral judgment, but an attempt to describe how for the most part we found ourselves caught up and busy with all the activities, concerns, and dealings with things and one another that formed the concerns of our everyday world.

Even as the world drops away in the difference of authenticity to which we are invited in the latter part of *Being and Time*, this does not find the world becoming insignificant. Rather it represented an awareness, steeped in acknowledging our having to die, of just how little we were capable of securing our own existence, and thus just how much our own being and that of world are inter-twined. If the world fell away in the experience of dying, then so did we ourselves; as we were brought to the realization of the nothingness to be found when left to ourselves. Authenticity did not bring us to a self apart from world, but rather to owning (*eigentlich*: making part of one’s own) the manner of our belonging to world.

If *Being and Time* is different from later works, it would be the manner in which it privileges human existence as the fundamental entry point into world. Dasein represents the how of our existing in terms of our essential openness toward all with which we find ourselves. Through our reaching out toward things, and especially in how essentially we find ourselves belonging with one another (*Mitsein*), the world opens up and becomes manifest as the context of relatedness that it is. Being there in the manner of Dasein, we are the gathering point through whose openness everything else is then revealed as what it is within the interplay that forms world. To exist as humans is to stand open within the opening up that is the world; it is to be those through whom the interplay and inter-relatedness that is world is manifest.

It is important to keep this perspective in mind as we turn our attention to Heidegger’s reflections on the meaning of technology. Here too, Heidegger’s thinking is existential and metaphysical; and he approaches technology not as something technological, but rather as a way of being in the world. It represents a way of dealing with things and one another that has a fateful impact not just on the kind of world it helps shape, but on the very meaning and being of our humanness as well.

Heidegger believed that modern technology represented something very different from that of previous eras because of the full extent to which practically everything, especially all aspects of the natural realm, had become
available and accessible to human manipulation. For Heidegger, technology does not represent merely the tools and equipment we make and use as we build and settle our world. More fundamentally than that, technology represents the manner in which humans have extended their reach to change, shape and thereby control just about everything we encounter within the world with practically no limit. Nothing has meaning or purpose except that it can be made available to be used, disposed of as needed, even ab-used if suitable. The difference of the era of modern technology is that nothing is left outside the scope of what humans can effect. Heidegger saw all this as auguring a time of danger because of the all-encompassing nature of what was taking place and also because of how we viewed it as strictly the result of our own power of achievement.4

Interestingly, Heidegger sounded his note of warning about the danger of this era of technology even before some of the more astounding achievements of recent years. Events during the past half century would seem to confirm his perspective, as we find very little that escapes the power of human manipulation. Not only have we split the atom, but we have managed to delve into the inner workings of its most elementary particles. Nature, in its most minute dimensions has been penetrated. But also laser and radio scopes have reached out into the beginnings of time itself to practically catch up with the very origins of the universe. And so nature at its cosmically largest and distant has also been penetrated as its countless galaxies are probed and made ready for observation.

However, even those accomplishments pale before more recent breakthroughs in bio-technology. The encoding within its double helix structure of the human genome has been deciphered; various possibilities for genetic engineering (whether therapeutic or reproductive) are already available. Nuclear transfer techniques associated with cloning open the door to incredible options with embryonic stem cell research. There is practically nothing, whether far or near, large or small that has not been laid open to human scrutiny and manipulation.

In referring to our time as one of fundamental danger in his reflections on technology, and this even before these contemporary achievements, Heidegger was sounding a warning concerning the manner in which everything, including all within the natural realm, had become subject to human arranging. If throughout the previous centuries nature had always presented limits to how far humans could extend their reach, those limits have been fading quickly, even to the point of disappearing. At least one aspect of the
Danger is that what we can do seems without limit. Never has the human seemed so potentially in charge of its world; never has the appearance of control seemed so total. These possibilities open up what is clearly uncharted territory; and that brings danger.

Undoubtedly, there are many aspects of our current situation that could justify assessing these as particularly dangerous times. If nothing else, we might note the amount of power we are capable of unleashing upon the world and ultimately upon ourselves with our new-found technologies. The peoples of the earth have been gathered together into something of a shared destiny in a way that was never before possible. While humans have always been dangerous, especially to one another, this danger is magnified by how all-encompassing is the impact decisions can have on so many. Even measures put in place for protection work as though behind our backs to put us more at risk than ever. Perhaps the greatest danger of all is the belief that we are enough in charge to maintain control over things, as though there can always be a technological fix to whatever problems arise.

Nevertheless, even these do not represent the danger that Heidegger sought to address in his essay. More dangerous is the all-pervasive mind-set or attitude that everything can be made available, accessible, and disposable without further consideration; as though what was being accomplished was strictly of our own doing. Here is where the earlier analysis of human existence in *Being and Time* has bearing. Nothing that humans accomplished was to be understood as arising strictly from our own power over things. That was the fundamental implication of existing as being-within-the-world. However privileged we might be as able to analyze, understand, manipulate, dispose of, even control; and however astounding and far-reaching our achievements, nevertheless it was all made possible and allowed for by nature of our openness and manner of belonging within the interplay of relatedness that is world.

In his essay on Technology, as well as other later reflections, Heidegger pressed to have us understand that we were offered and granted the privilege of all we might accomplish by nature of our way of existing: as those who stand open within the opening up that is relatedness, as those through whom the interplay of relatedness becomes manifest, is brought to word and given shape as world. While Heidegger recognizes what was taking place as falling upon the shoulders of our own responsibility, nevertheless, our expertise was not totally sufficient unto itself. Even the greatest of our achievements bear witness to the context of world and the interplay of relatedness within
which they all take place. The achievements of technology result not simply from our own doing; but involve as well the contributing factors of so much more than ourselves (con-tribuere: to bring together).

In order to begin to appreciate what this means, we might reflect by way of example on just how much is involved and contributes to achievements in deciphering the genome, or creating forms of life through embryonic stem cell research. Certainly the expertise we have developed in these areas of research is quite astounding. None of it would be possible without the sophisticated instrumentation and laboratory techniques that give us access to the inner complexities of nature as DNA, RNA, undifferentiated and differentiated cells, etc. Nevertheless, just as necessary and needed as well is the manner in which those natural patterns present themselves to be made intelligible and decipherable through the lens of the scientific and technological framework. We are able to accomplish what we do with the genome and stem cells because of (thus along with the contribution of) the manner in which nature makes itself available, accessible, and thus approachable in the intricacies of its own rhythms.

There would be nothing to accomplish if nature did not present itself to be laid bare and laid out for the approach of technology. Even granting the human penchant to understand, learn, and seek to know more and more, there remains a way in which nature itself is inviting our approach, taunting and daring us ever closer. The contribution of its natural rhythms to the developments of technology are further manifest in the experiences of vulnerability, pain, and suffering that have sparked advances in the sciences of medicine and arts of healing. In other words, there is cause to acknowledge that what has been accomplished arises not just from our own doing, but from the involvement as well (in-volvere: to be part of what is going around) of so much else with which we find ourselves within-the-world, some of which has become part of the very fabric and structure of our own being.

However, in pressing his point, Heidegger would go further and have us acknowledge the manner in which we ourselves are given the opportunity and sent along the way, as though destined to accomplish what we do because of the fateful manner in which we exist within the interplay of relatedness that is the world. But as we become focused strictly on what we can achieve, we take for granted the interplay and everything available within it. And, when it is all taken for granted, the granting is forgotten; and that is where the danger looms.
Heidegger does not define technology strictly as an act of achieving; but rather as a way of revealing. To reveal implies that something is brought forth from behind a veil. For example, we reveal to someone a secret, perhaps something we have known for a while but had not cared to share. As such, revealing implies bringing something into the light of day, something that we have been keeping to ourselves and hidden from others. In general, therefore, revealing implies showing something so that it can be seen or known.

At first glance, it may seem strange to refer to technology as a way of revealing. Nevertheless, recent achievements with the genome and embryonic stem cells might actually help exemplify what Heidegger was trying to say. The genetic code has been spiraling away within the encasing of its double helix structure; and stem cells have been differentiating from out of their primal status to form living organisms since well before the arrival of humans within the world. Nevertheless, only quite recently have their in-formational patterns been brought out of the secrecy of ages and translated (trans-late: transferred) into a language of intelligibility that can be deciphered through the lens of science and thereby made available to human scrutiny and manipulation. These astounding accomplishments have managed to bring into the light of intelligibility a dimension of world that had remained hidden and as though held secret within its natural patterns. From one point of view, these breakthroughs represent the greatest of human achievements, and open a frontier for further accomplishments within bio-technology that we can barely imagine, much less predict. Nevertheless, what have we done but revealed—brought into the light, translated, made intelligible, available, accessible in terms of human understanding, and thus no longer hidden in secrecy—what nature had long been?

However, here again lurks the danger: astonished at what has occurred as our own achievement, we downplay and even forget the role that nature has played in presenting itself to us in its most hidden patterns and rhythms. We forget how much our achievements are all made possible and arise out of a symbiotic relatedness and belonging together of humans and nature within the context and interplay that is world. We forget that our doing, by the very nature of how and where it takes place, is indeed a form of revealing.

According to Heidegger, this forgetting is not simply the result of a human shortcoming or failure. This forgetting as well is something that is allowed and encouraged by our place within the world.
derstand what this means, we might consider how nature itself has opened
and afforded access to its longest and deepest held secrets as though leading
us to believe that nothing is held back and left beyond reach. Even in its
most powerful feats of bringing forth life, nature stands as though power-
less before us. Everything is laid bare, magnified thousands-fold under the
scopes; and there seems no limit to what we can expect to do. The uncondi-
tional manner in which it is all laid open before us, accessible and available,
invites us to take it all for granted; practically teasing us to believe it is all
there specifically for us. There is a Buddhist saying that perhaps captures
well what Heidegger might be saying: in giving a gift, best to forget who
gives, forget who gets, and forget what is given. The self-effacing manner
in which the world has come into our hands, as though in the manner of a
gift, encourages the forgetting.

Forgetting represents a mind-set or way of thinking, or perhaps better,
a mind set that is not thinking; as we simply take up for use everything given
over into our hands without further consideration. Everything, including
ourselves, becomes swept up into the business of the everyday with no mean-
ing other than to be used, used up, perhaps even ab-used if suitable. The
danger is that we proceed to develop and apply technologies as though we
were masters of all. We take it all for granted, without noticing the granting
that takes place, and that it is all allowed and made possible by manner of
our belonging within the interplay of relatedness that is world. Forgetful of
world, we see only ourselves and what we would dare to achieve.

Nevertheless, in spite of what at times appears to be a severe criticism
of technology, Heidegger does not sound an ultimately despairing note
about the fate of the modern world. In the latter part of his reflections, he
addresses what he refers to as the possibility of a saving that might turn
things around and offer hope. To be saved, he says, is to be brought back
to an awareness of who we are: as those to whom has been entrusted the
safekeeping of world. This will occur not by trying to escape the danger; but
rather by reaching into the danger; for where the danger is, there precisely
is the saving. Hope exists not in backing away from the danger out of fear,
condemning the reach of technology; but rather in entering more fully and
embracing the danger for what it is. We would be saved from the danger
by the danger itself. Harking back to the themes of authenticity originally
struck in Being and Time (eigentlicheit: owning as pertaining to oneself), it
would entail owning responsibility as those to whom the world has indeed
been given over and into whose safekeeping it now rests.
Nevertheless, it would not be accurate to interpret Heidegger as simply heralding the technologizing of world. His thinking is more subtle and perhaps even paradoxical in nature; and we might gain a better clue as to his meaning by contrasting his thought to that of Nietzsche. Almost a century earlier, Nietzsche’s prophetic character Zarathustra sought to usher in a new age by declaring God dead and inviting humans to assume the role once ascribed to God. Previously, humans said God out of fear of having to accept the burden of full responsibility over world as their own. Zarathustra calls forth a higher form of human who would embrace this new found responsibility and choose to wield all the power associated with it as a birthright and future destiny. Nietzsche saw this not as a danger, but as the final frontier and challenge for humanity to emerge into its own fullness and greatness.

In many respects, Heidegger would seem to agree with Nietzsche’s assessment concerning the dawning of a new age. A new found sense of power and mastery over world is indeed taking place with the developments of modern technologies. Furthermore, Heidegger might even be going further than Nietzsche, understanding the event of the modern age not so much as something humans must choose, but as something for which they have been destined by a fate larger than themselves. Indeed, for Heidegger, the real danger was that this was a fate and destiny humans could not escape.

However, in other respects, these two thinkers could not be more different from one another. Nietzsche took hope that humans would embrace the power now in their hands as witness to their own greatness, even to the point of becoming as God. Heidegger, on the other hand, invites a mode of reflection that would move in a much different direction. He would have us not exalt in embracing the power we have over world, but rather have us become astounded and thereby humbled by the magnitude and all-encompassing manner in which all aspects of world have come into our hands. The saving hope is that the danger itself—the extent to which it can be taken for granted that the world is now in our hands—can be brought into the light of day and seen as the danger from which we cannot extricate ourselves, a danger arising not strictly from our own choosing and doing, but from our very manner of existing to begin with.

It is as though Heidegger would have us appreciate the fact that in many respects we are not as in control of things as we would like to believe; that we are not fully in charge of even our own accomplishments. Instead, the very manner in which we are needed as those alone who could accomplish
the promise of technology manifests how—as needed—we ourselves partake in the event (evenire: the coming about) of world in a way we could never fully control. Heidegger would have us accept that all is possible, precisely as made possible. However unique and privileged we are as those into whose responsibility the world has now been entrusted, nevertheless, even our greatest of achievements implicate much more than just our own powers. They involve as well what from Heidegger’s perspective could be seen as a mission or calling as those entrusted to reveal the possibilities of world because of our open way of belonging within the interplay of relatedness that is world.

Heidegger says there is hope for the world if and as the danger is perceived precisely as the danger. Somehow, the all-encompassing manner in which everything is now open and accessible, that there may be no limits to what we can do, and that all lies vulnerable might suddenly act as a lightning strike to shake us out of the slumbers of the everyday business. It might dawn on us that everything, including world itself is at risk; and thus we ourselves are at risk. Then we might understand that we ourselves are the danger.  

The point of seeing the danger is not that we then retreat from the enterprise of technology. Quite to the contrary, the danger haunting the technological era is that there is no retreat. However, it is precisely this realization that can turn our heads around and bring us to go forward in a manner Heidegger refers to as releasement. Releasement represents a form of letting go, but not in the sense of surrendering to the inevitable, or dismantling it; or merely leaving things alone. Releasement is similar to the Buddhist notion of detachment. To detach (de-tache: unstake, let loose from being tied down) is to set something free. Detachment does not leave things alone, for so long as we dwell within the world and its network of relatedness, there is nothing alone. However, it represents a way of relating and thus a way of handling things that no longer clings, possesses, holds on, and claims as one’s own.

To detach and release represents a reversal that learns to let things be what they are. It does so by handling what is in a way that respects that though everything is available and accessible, though it is all laid forth before us, nevertheless, it is not ours to possess and do with as we will simply because we can. Things are what they are and not simply what we demand them to be. This is no small matter in a world where everything
has become a resource to fuel the machinery that produces what we want, where nothing is respected except for what it can be taken up and used for, where there is little meaning or value to anything except as material, energy, even information that can be mobilized and put to work to suit our purposes. Even people, in so many instances, are caught up and swept up into the routines of usefulness, only to be marginalized with no place to belong when no longer useful.

Heidegger did not spell out with any clarity the specific kinds of technology an attitude of releasement would have us develop or how we would use it differently. Nevertheless, it would have to be consistent with our belonging within the world; and so we could speculate that we would proceed in a way that works with, not against nature, works with and not against one another, works with and not against the interdependencies that find us all connected and thus vulnerable within a shared world. Releasement need not abandon what is possible with the genome, the stem cell; but it would have us approach such areas of research with a hand that remains open: not in the manner of taking, but as receiving and thus grateful before all that is granted and all that becomes possible. It would proceed as the steadied and care-ful hands of the micro-biologist who is astounded, thus humbled, by the world that opens before him. It would proceed, seeking to bring hope where there is suffering and pain, yet thankful for the miracle of those healing energies of life itself that make it all possible. It would proceed with the diligence and care of the parent, proud yet humbled, frightened yet ready to care.

The difference would play a basic role not only in the kinds of technology we develop, but also in the purposes to which we put that technology. Do we see ourselves at the center of a world that is increasingly at our disposal, in which nothing else matters but what we will to do, becoming ever more powerful and able to extend what we can control, what we can produce and consume without limits, as though entitled to do so? Do we continue to develop and use technology to enhance the advantage of some regardless of the expense to others? Do we proceed with technology blindly believing that every problem can be fixed with technology itself? Or, do we see ourselves as uniquely destined to a level of responsibility and care toward one another and the earth that is frightening precisely in the power that has been given over to us? And therefore, do we see ourselves as needing to consider how what we do with technology impacts one another as well as the earth that births and sustains us as all belonging together within the shared gift of world?
It is not easy to imagine what could be different should we heed such reflections. Everything seems so locked into the world as it is. And yet, perhaps Heidegger is correct when he says that precisely there, where such dangers lurk, hope can arise. It would be not just overly simplistic, but also mistaken, simply to identify this hope with nostalgia for some former or pristine manner of living closer to nature. Such is not likely to be; and likely never was what nostalgia imagines, at least for most upon the earth. Instead, the possibilities for hope must arise precisely from within the technological society, even as it becomes global in scope, from those willing to question what is becoming of our world and what is becoming of ourselves.

There is evidence of such questioning. For example, even as our medical technologies become increasingly capable of controlling life and death processes, we hear questions raised concerning the kind of care that is generally available, or perhaps not available, especially in the end stages of life where we apparently view death mostly as failure and defeat. Learning to accept the living—dying process as an essential aspect of our lives is certainly humbling; but it offers a good example of acknowledging limits to how much we can control and manipulate, how much we can use technology to distance ourselves from who we are as human (humus: of the earth, thus mortal). Along the same lines, with regard to energy policies and uses, we can find hope from those who note the destructive nature of our lifestyles; those who recognize the impact of global warming, depleted resources, waste, etc; those who warn us of the unsustainability of it all. Even as the problems brought with technology are becoming global in nature, we are being asked more than ever to attend to what we are doing to the environment, and therefore to one another. We hear calls for greater reliance on renewable resources that find us accepting the natural limits within which we live rather than become dependent on other technologies such as nuclear, that demand control for thousands of years, increasing risk factors at many levels. Further, with respect to genomic and stem cell research, there is the differentiation being made between techniques that are therapeutic, and thus consistent with the healing energies that sustain life versus those that are strictly reproductive and serve mostly what we see as a right and prerogative to do what we will.

Perhaps as well, we should find hope that even as our lives become ever more complex and filled with things that take up time, we hear from the midst of all the busyness that simpler could be better, that less might allow for more, that relationships have priority over things. These sensitivities arise
from something within the human spirit that would have us remember our connectedness to one another and the earth, sensitivities that are as though spiritual in nature and would bring us to experience the dimension within world Heidegger addressed as Being. Exactly what any of us can do in our everyday lives to make a difference and bring about difference is not clear. At least, we can have the courage to question the world that is and seek for ways, however small and seemingly insignificant to do what we can. However much at the margins of things that puts us, we can be reminded of a statement by Ghandi: we must be the difference we seek in the world.

Heidegger tells us that the essence of technology is nothing technological. As it turns out, the difference called for by his reflections may not be primarily technological either, but rather something more essential, something having to with attitude and the prior way we see ourselves with regard to the world. That difference will likely determine the prospects of technology and the prospects of our world.

Notes

3 The manner in which Dasein, as open existing within the interplay that is world can be found in Heidegger’s analysis of Equiprimordiality (*Gleichursprunglicheit*) in *being and time*, 186-211.
5 Heidegger presents what is occuring in the modern age of technology as a granting of Being and not just a result of human doing alone: “Only what is granted endures. That which endures primally out of the earliest beginning is what grants,” in “The Question Concerning Technology,” 31.
6 In the “Question Concerning Technology,” 12, we read: “Technology is therefore no mere means. Technology is a way of Revealing;” and again on page 25: “Enframing belongs within the destining of revealing.”
7 The notion of forgetting, (oblivion, *vergessenheit*) is central to the danger. See page 46 in “The Question Concerning Technology,”: “The Coming to pass of oblivion not only lets fall from remembrance into concealment; but that falling itself falls simultaneously from remembrance into concealment, which itself also falls away in that falling.” I interpret this in terms of a taking for granted.
For a discussion of ‘the saving’, see “The Question Concerning Technology,” 31-34; and “The Turning,” 42-43. “The selfsame danger is, when it is as the danger, the saving power. The danger is the saving power, inasmuch as it brings the saving power out of its—the danger’s—concealed essence that is ever susceptible to turning.”

See “The Turning,” 47: “When insight comes disclosingly to pass, then men are the ones who are struck in their essence by the flashing of Being. Insight, men are the ones who are caught sight of.”

For a discussion of releasement (Gellasenheit), see Heidegger, discourse on thinking, (New York: Harper Torchbooks, 1966). In that essay, we find a further development of the notion of “removing human self-will” 79-85 that is mentioned in “The Turning,” 47.