

Highway bridges and feasts: Heidegger and Borgmann on how to affirm technology *

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Abstract. Borgmann's views seem to clarify and elaborate Heidegger's. Both thinkers understand technology as a way of coping with people and things that reveals them, viz. makes them intelligible. Both thinkers also claim that technological coping could devastate not only our environment and communal ties but more importantly the historical, world-opening being that has defined Westerners since the Greeks. Both think that this devastation can be prevented by attending to the practices for coping with simple things like family meals and footbridges. But, contrary to Borgmann, Heidegger claims further that, alongside simple things, we can affirm technological things such as autobahn bridges. For Borgmann, technological coping produces things like central heating that are so dispersed they inhibit skillful interaction with them and therefore prevent our being sensitive to ourselves as world-disclosers. For Heidegger, so long as we can still relate to non-technological things, we can affirm relations with technological things because we can maintain both our technological and the non-technological *ways of world-disclosing*. So Borgmann sees revealing as primarily directed to things while Heidegger sees it as directed to worlds. If Heidegger is right about us, we have more leeway to save ourselves from technological devastation than Borgmann sees.

Albert Borgmann advances an American frontiersman's version of the question concerning technology that was pursued by Heidegger almost half a century ago among the peasants in the Black Forest. Since the *critique* of technology pioneered by these thinkers has by now become widely known, we would like to address a subsequent question with which each has also struggled. How can we relate ourselves to technology in a way that not only resists its devastation but also gives it a positive role in our lives? This is an extremely difficult question to which no one has yet given an adequate response, but it is perhaps *the* question for our generation. Through a sympathetic examination of the Borgmannian and Heideggerian alternatives, we hope we can show that Heidegger suggests a more coherent and credible answer than Borgmann's.

* An earlier version of this essay was delivered as the 1996 Bugbee Lecture at the University of Montana. We would like thank Albert Borgmann, David Hoy, and Julian Young for their helpful comments on earlier drafts of this paper.

1. The essence of technology

In writing about technology, Heidegger formulates the goal we are concerned with here as that of gaining a free relation to technology – a way of living with technology that does not allow it to “warp, confuse, and lay waste our nature.”¹ According to Heidegger our nature is to be world disclosers. That is, by means of our equipment and coordinated practices we human beings open coherent, distinct contexts or worlds in which we perceive, act, and think. Each such world makes possible a distinct and pervasive way in which things, people, and selves can appear and in which certain ways of acting make sense. The Heidegger of *Being and Time* called a world an understanding of being and argued that such an understanding of being is what makes it possible for us to encounter people and things as such. He considered his discovery of the ontological difference – the difference between the understanding of being and the beings that can show up given an understanding of being – his single great contribution to Western thought.

Middle Heidegger (roughly from the 1930s to 1950) added that there have been a series of total understandings of being in the West, each focused by a cultural paradigm which he called a work of art² He distinguished roughly six epochs in our changing understanding of being. First things were understood on the model of wild nature as *physis*, i.e. as springing forth on their own. Then on the basis of *poiesis*, or nurturing, things were dealt with as needing to be helped to come forth. This was followed by an understanding of things as finished works, which in turn led to the understanding of all beings as *creatures* produced by a creator God. This religious world gave way to the modern one in which everything was organized to stand over against and satisfy the desires of autonomous and stable subjects. In 1950, Heidegger claimed, that we were entering a final epoch which he called *the technological understanding of being*.

But until late in his development, Heidegger was not clear as to how technology worked. He held for a long time that the danger of technology was that man was dominating everything and exploiting all beings for his own satisfaction, as if man were a subject in control and the objectification of everything were the problem. Thus, in 1940 he says:

Man is what lies at the bottom of all beings; and that is, in modern terms, at the bottom of all objectification and representability.³

To test this early claim we turn to the work of Albert Borgmann since he has given us the best account of this aspect of Heidegger’s thinking. Rather than doing an exegesis of Heidegger’s texts, Borgmann does just what Heidegger

wants his readers to do. He follows Heidegger on his path of thought, which always means finding the phenomena about which Heidegger is thinking. In *Technology and the Character of Contemporary Life*, Borgmann draws attention to the phenomenon of the technological device. Before the triumph of technological devices, people primarily engaged in practices that nurtured or crafted various things. So gardeners developed the skills and put in the effort necessary for nurturing plants, musicians acquired the skill necessary for bringing forth music, the fire place had to be filled with wood of certain types and carefully maintained in order to provide warmth for the family. Technology, as Borgmann understands it, belongs to the last stage in the history of the understandings of being in the West. It replaces the worlds of *poiesis*, craftsmen, and Christians with a world in which subjects control objects. In such a world the things that call for and focus nurturing, craftsmanly, or praising practices are replaced by devices that offer a more and more transparent or commodious way of satisfying a desire. Thus the wood-burning fireplace as the foyer or focus of family activity is replaced by the stove and then by the furnace.

As Heidegger’s thinking about technology deepened, however, he saw that even objects cannot resist the advance of technology. He came to see this in two steps. First, he saw that the nature of technology does not depend on subjects understanding and using objects. In 1946 he said that exploitation and control are not the subject’s doing; “that man becomes the subject and the world the object, is a consequence of technology’s nature establishing itself, and not the other way around.”⁴ And in his final analysis of technology, Heidegger was critical of those who, still caught in the subject/object picture, thought that technology was dangerous because it embodied instrumental reason. Modern technology, he insists, is “something completely different and therefore new.”⁵ The goal of technology Heidegger then tells us, is the more and more flexible and efficient ordering of resources, not as objects to satisfy our desires, but simply for the sake of ordering. He writes:

Everywhere everything is ordered to stand by, to be immediately at hand, in order to stand there just so that it may be on call for a further ordering. Whatever is ordered about in this way . . . we call . . . standing-reserve. . . . Whatever stands by in the sense of standing reserve no longer stands over against us as object.⁶

Like late Heidegger, recent Borgmann sees that the direction technology is taking will eventually get rid altogether of objects. In his latest book, *Crossing the Postmodern Divide*, Borgmann takes up the difference between *modern* and *postmodern* technology. He distinguishes *modern hard* technology from

postmodern soft technology. On Borgmann's account, modern technology, by rigidity and control, overcame the resistance of nature and succeeded in fabricating impressive structures such as railroad bridges as well as a host of standard durable devices. *Postmodern* technology, by being flexible and adaptive, produces instead a diverse array of quality goods such as high-tech athletic shoes designed specifically for each particular athletic activity.

Borgmann notes that as our postmodern society has moved from production to service industries our products have evolved from sophisticated goods to information. He further sees that this postmodern instrumental reality is giving way in its turn to the hyperreality of simulators that seek to get rid of the limitations imposed by the real world. Taken to the limit the simulator puts an improved reality completely at our disposal. Thus the limit of postmodernity, as Borgmann understands it, would be reached, not by the total objectification and exploitation of nature, but by getting rid of natural objects and replacing them with simulacra that are completely under our control. The essential feature of such hyperreality on Borgmann's account is that it is "entirely subject to my desire."⁷ Thus for Borgmann the *object* disappears precisely to the extent that the *subject* gains total control. But Borgmann adds the important qualification that in gaining total control, the postmodern subject is reduced to "a point of arbitrary desires."⁸ In the end, Borgmann's postmodern hyperreality would eliminate both objects and modernist subjects who have long-term identities and commitments. Nevertheless, Borgmann still remains within the field of subjectivity by maintaining that hyperreality is driven by the satisfaction of desires.

Even though he wrote almost half a century ago, Heidegger already had a similar account of the last stage of modernity. Like Borgmann he saw that information is replacing objects in our lives, and Heidegger and Borgmann would agree that information's main characteristic is that it can be easily transformed. But, whereas Borgmann sees the goal of these transformations as serving a minimal subject's desires, Heidegger claims that "both the subject and the object are sucked up as standing-reserve."⁹ To see what he means by this, we can begin by examining Heidegger's half-century-old example. Heidegger describes the hydroelectric power station on the Rhine as his paradigm technological device because for him electricity is the paradigm technological stuff. He says:

The revealing that rules throughout modern technology has the character of a setting-upon, in the sense of a challenging-forth. That challenging happens in that the energy concealed in nature is unlocked, what is unlocked is transformed, what is transformed is stored up, what is stored up is, in turn, distributed, and what is distributed is switched about *ever anew*.¹⁰

But we can see now that electricity is not a perfect example of technological stuff because it ends up finally turned into light, heat, or motion to satisfy some subject's desire. Heidegger's intuition is that treating everything as standing reserve or, as we might better say, resources, makes possible *endless* disaggregation, redistribution, and reaggregation *for its own sake*. As soon as he sees that information is truly endlessly transformable Heidegger switches to computer manipulation of information as his paradigm.¹¹

As noted, when Heidegger says that technology is not instrumental and objectifying but "something entirely new," he means that, along with objects, subjects are eliminated by this new mode of being. Thus for Heidegger post-modern technology is not the culmination of the modern subject's controlling of objects but a new stage in the understanding of being. Heidegger, standing on Nietzsche's shoulders, gains a glimpse of this new understanding when he interprets Nietzsche as holding that the will to power is not the will to gain control for the sake of satisfying one's desires – even arbitrary ones – but the tendency in the practices to produce and maintain flexible ordering so that the fixity of even the past can be conquered; this cashes out as flexible ordering for the sake of more ordering and reordering without limit, which, according to Heidegger, Nietzsche expresses as the eternal return of the same.¹² Thanks to Nietzsche, Heidegger could sense that, when everything becomes standing reserve or resources, people and things will no longer be understood as having essences or identities or, for people, the goal of satisfying arbitrary desires, but back in 1955 he could not yet make out just how such a world would look.

Now, half a century after Heidegger wrote *The Question Concerning Technology*, the new understanding of being is becoming evident. A concrete example of this change and of an old fashioned subject's resistance to it can be seen in a recent *New York Times* article entitled: "An Era When Fluidity Has Replaced Maturity" (March, 20th, 1995). The author, Michiko Kakutani, laments that "for many people . . . shape-shifting and metamorphosis seem to have replaced the conventional process of maturation." She then quotes a psychiatrist, Robert Jay Lifton, who notes in his book *The Protean Self* that "We are becoming fluid and many-sided. Without quite realizing it, we have been evolving a sense of self appropriate to the restlessness and flux of our time."¹³ Kakutani then comments:

Certainly signs of the flux and restlessness Mr. Lifton describes can be found everywhere one looks. On a superficial cultural level, we are surrounded by images of shape-shifting and reinvention, from sci-fi creatures who "morph" from form to form, to children's toys [she has in mind Transformers that metamorphose from people into vehicles]; from Madonna's ever expanding gallery of ready-to-wear personas to New Age mystics who claim they can "channel" other people or remember "previous" lives.¹⁴

In a quite different domain, in a talk at Berkeley on the difference between the modern library culture and the new information-retrieval culture, Terry Winograd notes a series of oppositions which, when organized into a chart, show the transformation of the Modern into the Postmodern along the lines that Heidegger described. Here are a few of the oppositions that Winograd found:

<i>Library Culture</i>	<i>Information-Retrieval Culture</i>
Careful selection:	Access to everything:
a. quality of editions	a. inclusiveness of editions
b. perspicuous descriptions on cards to enable judgment	b. operational training on search engines to enable coping
c. authenticity of the text	c. availability of texts
Classification:	Diversification:
a. disciplinary standards	a. user friendliness
b. stable, organized, defined by specific interests	b. hypertext – following all lines of curiosity
Permanent collections:	Dynamic collections:
a. preservation of a fixed text	a. intertextual evolution
b. browsing	b. surfing the web

It is clear from these opposed lists that more has changed than the move from control of objects to flexibility of storage and access. What is being stored and accessed is no longer a fixed body of objects with fixed identities and contents. Moreover, the user seeking the information is not a subject who desires a more complete and reliable model of the world, but a protean being ready to be opened up to ever new horizons. In short, the postmodern human being is not interested in collecting but is constituted by connecting.

The perfect postmodern artifact is, thus, the Internet, and Sherry Turkle has described how the net is changing the background practices that determine the kinds of selves we can be. In her recent book, *Life on the Screen: Identity, in the Age of the Internet*, she details “the ability of the Internet to change popular understandings of identity.” On the Internet, she tells us, “we are encouraged to think of ourselves as fluid, emergent, decentralized, multiplicitous, and ever in process.”¹⁵ Thus “the Internet has become a significant social laboratory for experimenting with the constructions and reconstructions of self that characterize postmodern life.”¹⁶ Precisely what sort of identity does the Net encourage us to construct?

There seem to be two answers that Turkle does not clearly distinguish. She uses as her paradigm Net experience the MUD, which is an acronym for Multi-User Dungeon – a virtual space popular with adults that has its origin in a teenagers’ role playing game. A MUD, she says, “can become a context for discovering who one is and wishes to be.” Thus some people explore roles in order to become more clearly and confidently themselves. The Net then functions in the old subject/object mode “to facilitate self knowledge and personal growth.”¹⁸ But, on the other hand, although Turkle continues to use the out-dated, modernist language of personal growth, she sees that the computer and the Internet promote something totally different and new. “MUDs,” she tells us, “make possible the creation of an identity so fluid and multiple that it strains the limits of the notion.”¹⁹ Indeed, the MUD’s disembodiment and lack of commitment enables people to be many selves without having to integrate these selves or to use them to improve a single identity. As Turkle notes:

In MUDs you can write and revise your character’s self-description whenever you wish. On some MUDs you can even create a character that “morphs” into another with the command “morph.”²⁰

Once we become accustomed to the age of the Net, we shall have many different skills for identity construction, and we shall move around virtual spaces and real spaces seeking ways to exercise these skills, powers, and passions as best we can. We might imagine people joining in this or that activity with a particular identity for so long as the identity and activity are exhilarating and then moving on to new identities and activities. Such people would thrive on having no home community and no home sense of self. The promise of the Net is that we will all develop sufficient skills to do one kind of work with one set of partners and then move on to do some other kind of work with other partners. The style that would govern such a society would be one of intense, but short, involvements, and everything would be done to maintain and develop the flexible disaggregation and reaggregation of various skills and faculties. Desires and their satisfaction would give way to having the thrill of the moment.

Communities of such people would not seem like communities by today’s standards. They would not have a core cadre who remained in them over long periods of time. Rather, tomorrow’s communities would live and die on the model of rock groups. For a while there would be an intense effort among a group of people and an enormous flowering of talent and artistry, and then that activity would get stale, and the members would go their own ways, joining other communities.²¹ If you think that today’s rock groups are a special case, consider how today’s businesses are getting much work done by

so-called hot groups. Notoriously, the Apple Macintosh was the result of the work of such group. More and more products are appearing that have come about through such efforts. In such a world not only fixed identities but even desiring subjects would, indeed, have been sucked up as standing reserve.

2. Heidegger's proposal

In order to explain Heidegger's positive response to technological things, we shall generalize Heidegger's description of the gathering power of mostly Black Forest things²² by using Borgmann's American account of what he calls focal practices. We will then be in a position to see how, given their shared view of how things and their local worlds resist technology, Borgmann's understanding of technological practices as still enmeshed with subjectivity leads him to the conclusion that technological things cannot solicit focal practices, while Heidegger's account of postmodern technological practices as radically different from modern subject/object practices enables him to see a positive role for technological things, and the practices they solicit.

In "The Thing" (1949) and "Building Dwelling Thinking" (1951), Heidegger explores a kind of gathering that would enable us to resist postmodern technological practices. In these essays, he turns from the cultural gathering he explored in "The Origin of the Work of Art" (that sets up shared meaningful differences and thereby unifies an entire culture) to local gatherings that set up local worlds. Such local worlds occur around some everyday thing that temporarily brings into their own both the thing itself and those involved in the typical activity concerning the use of the thing. Heidegger calls this event a *thing thinging* and the tendency in the practices to bring things and people into their own, *appropriation*. Albert Borgmann has usefully called the practices that support this local gathering *focal practices*.²³ Heidegger's examples of things that focus such local gathering are a wine jug and an old stone bridge. Such things gather Black Forest peasant practices, but, as Borgmann has seen, the family meal acts as a focal thing when it draws on the culinary and social skills of family members and solicits fathers, mothers, husbands, wives, children, familiar warmth, good humor, and loyalty to come to the fore in their excellence, or in, as Heidegger would say, their ownmost.

Heidegger describes such focal practices in general terms by saying that when things thing they bring together earth and sky, divinities and mortals. When he speaks this way, his thinking draws on Holderlin's difficult poetic terms of art; yet, what Heidegger means has its own coherence so long as we keep the phenomenon of a thing thinging before us. Heidegger, thinking of the taken-for-granted practices that ground situations and make them matter to us, calls them *earth*. In the example of the family meal we have borrowed

from Borgmann, the grounding practices would be the traditional practices that produce, sustain, and develop the nuclear family. It is essential to the way these earthy practices operate that they make family gathering matter. For families, such dining practices are not simply options for the family to indulge in or not. They are the basis upon which all manifest options appear. To ground mattering such practices must remain in the background. Thus, Heidegger conceives of the earth as being fruitful by virtue of being withdrawing and hidden.

By *sky*, Heidegger means the disclosed or manifest stable possibilities for action that arise in focal situations.²⁴ When a focal situation is happening, one feels that certain actions are appropriate. At dinner, actions such as reminiscences, warm conversation, and even debate about events that have befallen family members during the day, as well as questions to draw people out are solicited. But, lecturing, impromptu combat, private jokes, and brooding silence are discouraged. What particular possibilities are relevant is determined by the situation itself.

In describing the cultural works of art that provide unified understandings of being, Heidegger was content with the categories of earth and world which map roughly on the thing's earth and sky. But when Heidegger thinks of focal practices, he also thinks in terms of *divinities*. When a focal event such as a family meal is working to the point where it has its particular integrity, one feels extraordinarily in tune with all that is happening, a special graceful ease takes over, and events seem to unfold of their own momentum – all combining to make the moment all the more centered and more a gift. A reverential sentiment arises; one feels thankful or grateful for receiving all that is brought out by this particular situation. Such sentiments are frequently manifested in practices such as toasting or in wishing others could be joining in such a moment. The older practice for expressing this sentiment was, of course, saying grace. Borgmann expresses a similar insight when, in speaking of a baseball game as attuning people, he says:

Given such attunement, banter and laughter flow naturally across strangers and unite them into a community. When reality and community conspire this way, divinity descends on the game.²⁵

Our sense that we did not and could not make the occasion a center of focal meaning by our own effort but rather that the special attunement required for such an occasion to work has to be granted to us is what Heidegger wants to capture in his claim that when a thing things the divinities must be present. How the power of the divinities will be understood will depend on the understanding of being of the culture but the phenomenon Heidegger describes is cross-cultural.

The fourth element of what Heidegger calls the fourfold is the *mortals*. By using this term, Heidegger is describing us as disclosers and he thinks that death primarily reveals our disclosive way of being to us. When he speaks of death, he does not mean demise or a medically defined death. He means an attribute of the way human practices work that causes mortals (later Heidegger's word for people who are inside a focal practice) to understand that they have no fixed identity and so must be ready to relinquish their current identity in order to assume the identity that their practices next call them into attunement with.²⁶ Of course, one needs an account of how such a multiplicity of identities and worlds differs from the morphing and hot groups we have just been describing. We will come back to this question shortly.

So far, following Borgmann, we have described the phenomenon of a thing thinging in its most glamorized form where we experience the family coming together as an integrated whole at a particular moment around a particular event. Heidegger calls this heightened version of a thing thinging a thing "shining forth."²⁷ But if we focus exclusively on the glamorized version, we can easily miss two other essential features of things that Heidegger attends to in "Building Dwelling Thinking." The first is that things thing even when we do not respond to them with full attention. For instance, when we walk off a crowded street into a cathedral, our whole demeanor changes even if we are not alert to it. We relax in its cool darkness that solicits meditateness. Our sense of what is loud and soft changes, and we quiet our conversation. In general, we manifest and become centered in whatever reverential practices remain in our post-Christian way of life. Heidegger claims that things like bridges and town squares establish location and thereby thing even in ways more privative than our cathedral example. He seems to mean that so long as people who regularly encounter a thing are socialized to respond to it appropriately, their practices are organized around the thing, and its solicitations are taken into account even when no one notices.

Instead of cathedrals, Heidegger uses various sorts of bridges as examples of things thinging but not shining. His list of bridges includes a bridge from almost every major epoch in his history of the Western understandings of being. Heidegger's account could begin with the *physis* bridge – say some rocks or a fallen tree – which just flashes up to reward those who are alert to the offerings of nature. But he, in fact, begins his list with a bridge from the age of *poiesis*: "the river bridge near the country town [that] brings wagon and horse teams to the surrounding villages."²⁸ Then there is the bridge from high medieval times when being was understood as *createdness*. It "leads from the precincts of the castle to the cathedral square." Oddly enough there is no bridge from the subject/object days but Borgmann has leapt into the breach with magnificent accounts of the heroic effort involved in constructing railroad

bridges, and poets, starting with Walt Whitman, have seen in the massive iron structure of the Brooklyn bridge an emblem of the imposing power and optimism of America.²⁹ Such a modern bridge is solid and reliable but it is rigid and locks into place the locations it connects.

After having briefly and soberly mentioned the *poiesis* bridge, Heidegger re-describes it in the style of Black Forest kitsch for which he is infamous. "The old stone bridge's humble brook crossing gives to the harvest wagon its passage from the fields into the village and carries the lumber cart from the field path to the road." Passages like this one seem to support Borgmann's contention that "an inappropriate nostalgia clings to Heidegger's account"³⁰ and that the things he names are "scattered and of yesterday."³¹ And it is true that Heidegger distrusts typewriters,³² phonographs, and television.³³ Borgmann finds "Heidegger's reflections that we have to seek out pretechnological enclaves to encounter focal things . . . misleading and dispiriting."³⁴

While Borgmann shares Heidegger's distrust of technological *devices*, he, nonetheless, sees himself as different from Heidegger in that he finds a positive place for what he calls technological *instruments* in supporting traditional things and the practices they focus. He mentions the way hi-tech running shoes enhance running,³⁵ and one might add in the same vein that the dishwasher is a transparent technological instrument that supports, rather than interferes with or detracts from, the joys of the "great meal of the day." Still, according to Borgmann, what gets supported can never be technological devices since such devices, by satisfying our arbitrary desires as quickly and transparently as possible, cannot focus our practices and our lives but only disperse them.³⁶

But if there were a way that technological devices could thing and thereby gather us, then one could be drawn into a positive relationship with them without becoming a resource engaged in this disaggregation and re-aggregation of things and oneself and thereby losing one's nature as a discloser. Precisely in response to this possibility, Heidegger, while still thinking of bridges, overcomes his Black Forest nostalgia and suggests a radical possibility unexplored by Borgmann. In reading Heidegger's list of bridges from various epochs, each of which things inconspicuously "in its own way," no one seems to have noticed the last bridge in the series. After his kitschy remarks on the humble old stone bridge, Heidegger continues: "The highway bridge is tied into the network of long-distance traffic, paced as calculated for maximum yield."³⁷ Clearly Heidegger is thinking of the postmodern auto-bahn interchange, in the middle of nowhere, connecting many highways so as to provide easy access to as many destinations as possible. Surely, one might think, Heidegger's point is that such a technological artifact could not possibly thing. Yet Heidegger continues:

Ever differently the bridge escorts the lingering and hastening ways of men to and fro . . . The bridge *gathers*, as a passage that crosses, before the divinities – whether we explicitly think of, and visibly *give thanks for*, their presence, as in the figure of the saint of the bridge, or whether that divine presence is hidden or even pushed aside.³⁸

Heidegger is here following out his sense that different things thing with different modes of revealing, that is, that each “*gathers to itself in its own way earth and sky, divinities and mortals.*”³⁹ Figuring out what Heidegger might mean here is not a question of arcane Heidegger exegesis but an opportunity to return to the difficult question we raised at the beginning: How can we relate ourselves to technology in a positive way while resisting its devastation of our essence as world disclosers? In Heidegger’s terms we must ask, How can a technological artifact like the highway bridge, dedicated as it is to optimizing options, gather the fourfold? Or, following Borgmann’s sense of the phenomenon, we can ask how could a technological device like the highway bridge give one’s activity a temporary focus? Granted that the highway bridge is a flexible resource, how can we get in tune with it without becoming flexible resources ourselves? How can mortals morph?

To answer this question about how we can respond to technology as disclosers or mortals, we must first get a clear picture of exactly what it is like to be turned into resources responding to each situation according to whichever of our disaggregated skills is solicited most strongly. We can get a hint of what such optimizing of disaggregated skills looks like if we think of the relations among a pack of today’s teenagers. When a group of teenagers wants to get a new CD, the one with the car (with the driving skills and capacity) will be most important until they get to the store; then the one with the money (with purchasing skills and capacity) will lead; and then when they want to play the CD, the one with the CD player (with CD playing skills and capacity) will be out front. In each moment, the others will coordinate themselves to bring out maximally whatever other relevant skills (or possessions) they have such as chatting pleasantly, carrying stuff, reading maps, tuning the car radio, making wisecracks, and scouting out things that could be done for free. Consequently, they will be developing these other skills too.

If people lived their whole lives in this improvising mode, they would understand themselves only in terms of the skills that made the most sense at the moment. They would not see themselves as having a coordinated network of skills, but only in being led by chance to exercise some skill or other. Hence, they would not experience themselves as satisfying desires so much as getting along adaptably. Satisfying a desire here and there might be some small part of that.

If we now turn back to the autobahn “bridge” example, we can see the encounter with the interchange as a chance to let different skills be exercised. So on a sunny day we may encounter a interchange outside of Freiburg as we drive to a meeting in town as soliciting us to reschedule our meeting at Lake Constance. We take the appropriate exit and then use our cellular phone to make sure others do the same.

We can begin to understand how Heidegger thinks we can respond to technological things without becoming a collection of disaggregated skills, if we ask how the bridge could gather the fourfold. What is manifest like the *sky* are multiple possibilities. The interchange connects anywhere to anywhere else – strictly speaking it does not even connect two banks. All that is left of *earth* is that it matters that there are such possibilities, although it does not matter that there are these specific ones. But what about the *divinities*? Heidegger has to admit that they have been pushed aside. As one speeds around a clover leaf one has no pre-modern sense of having received a gift. Neither is there a modern sense, such as one might experience on a solid, iron railroad bridge, that human beings have here achieved a great triumph. All one is left with is a sense of flexibility and excitement. One senses how easy it would be to go anywhere. If one is in tune with technological flexibility, one feels *lucky* to be open to so many possibilities.

We can see that for Heidegger the interchange bridge is certainly not the best kind of bridge but it does have its style, and one can be sensitive to it in the way it solicits. The next question is, whether in getting in tune with the thinging of the highway bridge one is turned into a resource with no stable identity and no world that one is disclosing or whether one still has some sense of having an identity and of contributing to disclosing. This is where Heidegger’s stress on our being *mortals* becomes essential. To understand oneself as mortal means to understand one’s identity and world as fragile and temporary and requiring one’s active engagement. In the case of the highway bridge, it means that, even while getting in tune with being a flexible resource, one does not understand oneself as being a resource all the time and everywhere. One does not always feel pressured, for instance, to optimize one’s vacation possibilities by refusing to get stuck on back roads and sticking to the interstates. Rather, as one speeds along the overpass, one senses one’s mortality, namely that one has other skills for bringing out other sorts of things, and therefore one is never wholly a resource.⁴⁰

We have just described what may seem to be a paradox. We have said that even a technological thing may gather together earth, sky, mortals, and maybe even divinities, which are supposed to be the aspects of practices that gather people, equipment, and activities into local worlds, with roles, habitual practices, and a style that provide disclosers with a sense of integrity or

centeredness. But technological things notoriously disperse us into a bunch of disaggregated skills with a style of flexible dispersion. So what could they gather into a local world? There is only one answer here. Neither equipment nor roles could be gathered, but the skills for treating ourselves as disaggregated skills and the world as a series of open possibilities are what are drawn together so that various dispersed skillful performances become possible.

But if we focus on the skills for dispersing alone, then the dangerous seduction of technology is enhanced. Because the word processor makes writing easy for desiring subjects and this ease in writing solicits us to enter discourses rather than produce finished works, the word processor attached to the Net solicits us to substitute it for pens and typewriters, thereby eliminating the equipment *and the skills* that were appropriate for modern subject/object practices. It takes a real commitment to focal practices based on stable subjects and objects to go on writing personal letters with a fountain pen and to insist that papers written on the word processor must reach an elegant finish. If the tendency to rely completely on the flexibility of technological devices is not resisted, we will be left with only one kind of writing implement promoting one style of practice, namely those of endless transformation and enhancement. Likewise, if we live our lives in front of our home entertainment centers where we can morph at will from being audiophiles to sports fans to distance learners, our sense of being mortals who can open various worlds and have various identities will be lost as we, indeed, become pure resources.⁴¹

Resistance to technological practices by cultivating focal practices is the primary solution Borgmann gives to saving ourselves from technological devastation. Borgmann cannot find anything more positive in technology — other than indulging in good running shoes and a Big Mac every now and then — because he sees technology as the highest form of subjectivity. It may fragment our identities, but it maintains us as desiring beings not world disclosers. In contrast, since Heidegger sees technology as disaggregating our identities into a contingently built up collection of skills, technological things solicit certain skills without requiring that we take ourselves as having one style of identity or another. This absence of identity may make our mode of being as world disclosers impossible for us. This would be what Heidegger calls the greatest danger. But this absence of an identity also allows us to become sensitive to the various identities we have when we are engaged in disclosing the different worlds focused by different styles of things. For, although even dispersive technological skills will always gather in some fashion as they develop, the role of mortals as active world disclosers will only be preserved if it is at least possible for the gathering of these background skills to be experienced as such. And this experience will only be possible in technology if one can shift back and forth between pre-technological identities

with their style of coping and a technological style. As such disclosers we can then respond to technological things as revealing one kind of world among others. Hence, Heidegger's view of technology allows him to find a positive relation to it, but only so long as we maintain skills for disclosing other kinds of local worlds. Freeing us from having a total fixed identity so that we may experience ourselves as multiple identities disclosing multiple worlds is what Heidegger calls technology's saving power.⁴²

We have seen that for Heidegger being gathered by and nurturing non-technological things makes possible being gathered by technological things. Thus, living in a plurality of local worlds is not only desirable, as Borgmann sees, but is actually necessary if we are to give a positive place to technological devices. Both thinkers must, therefore, face the question that Borgmann faces in his recent book, as to how to live in a plurality of communities of focal celebration. If we try to organize our lives so as to maximize the number of focal worlds we dwell in each day, we will find ourselves teaching, then running, then making dinner, then clearing up just in time to play chamber music. Such a controlling approach will produce a subject that is always outside the current world, planning the next. Indeed such willful organization runs against the responsiveness necessary for dwelling in local worlds at all. But if, on the other hand, one goes from world to world fully absorbed in each and then fully open to whatever thing grabs one next, one will exist either as a collection of unrelated selves or as no self at all, drifting in a disoriented way among worlds. To avoid such a morphing or empty identities, one wants a life where engaging in one focal practice leads naturally to engaging in another — a life of affiliations such that one regularly is solicited to do the next focal thing when the current one is becoming irrelevant. Borgmann has intimations of such a life:

Musicians recognize gardeners; horse people understand artisans. . . . The experience of this kinship . . . opens up a wider reality that allows one to refocus one's life when failing strength or changing circumstances withdraw a focal thing.⁴³

Such a plurality of focal skills not only enables one to move from world to world; it gives one a sort of poly-identity that is neither the identity of an arbitrary desiring subject nor the rudderless adaptability of a resource.

Such a kinship of mortals opens new possibilities for relations among communities. As Borgmann says:

People who have been captivated by music . . . will make music themselves, but they will not exclude the runners or condemn the writers. In

fact, they may run and write themselves or have spouses or acquaintances who do. There is an interlacing of communities of celebration.⁴⁴

Here, we suspect, we can find a positive place for technological devices. For there is room in such interconnecting worlds not only for a joyful family dinner, writing to a life-long friend, and attending the local concert but also for surfing on the Internet and happily zipping around an autobahn cloverleaf in tune with technology and glad that one is open to the possibilities of connecting with each of these worlds and many others.

But Borgmann does not end with his account of the interlacing of communities, which is where Heidegger, when he is thinking of things thinging, would end. Borgmann writes:

To conclude matters in this way . . . would suppress a profound need and a crucial fact of communal celebration, namely religion. People feel a deep desire for comprehensive and comprehending orientation.⁴⁵

Borgmann thinks that, fortunately, we postmoderns are more mature than former believers who excluded communities other than their own. Thus we can build a world that promotes both local worlds and a “community of communities” that satisfies everyone’s need for comprehensiveness. To accept the view that our concerns form what Borgmann calls a *community of communities* is to embrace one, overarching understanding of being of the sort that Heidegger in his middle period hoped might once again shine forth in a unifying cultural paradigm. So we find that Borgmann, like middle Heidegger, entertains the possibility that “a hidden center of these dispersed focuses may emerge some day to unite them.”⁴⁶ Moreover, such a focus would “surpass the peripheral ones in concreteness, depth, and significance.”⁴⁷

Heidegger’s thinking until 1955, when he wrote “The Question Concerning Technology,” was like Borgmann’s current thinking in that for him preserving things was compatible with awaiting a single God.⁴⁸ Heidegger said as early as 1946 that the divinities were traces of the lost godhead.⁴⁹ But Heidegger came to think that there was an essential antagonism between a unified understanding of being and local worlds. Of course, he always realized that there would be an antagonism between the style set up by a cultural paradigm and things that could only be brought out in their ownness in a style different from the dominant cultural style. Such things would inevitably be dispersed to the margins of the culture. There, as Borgmann so well sees, they will shine in contrast to the dominant style but will have to resist being considered irrelevant or even wicked.⁵⁰ But, if there is a single understanding of being, even those things that come into their own in the dominant cultural style will be inhibited as things. Already in his “Thing” essay Heidegger goes out of his

way to point out that, even though the original meaning of ‘thing’ in German is a gathering to discuss a matter of concern to the community, in the case of the thing thinging, the gathering in question must be self contained. The focal occasion must determine which community concerns are relevant rather than the reverse.⁵¹

Given the way local worlds establish their own internal coherence that resists any imposition from outside there is bound to be a tension between the glorious cultural paradigm that establishes an understanding of being for a whole culture and the humble inconspicuous things. The shining of one would wash out the shining of the others. The tendency toward one unified world would impede the gathering of local worlds. Given this tension, in a late seminar Heidegger abandoned what he had considered up to then his crucial contribution to philosophy, the notion of a single understanding of being and its correlated notion of the ontological difference between being and beings. He remarks that “from the perspective of appropriation [the tendency in the practices to bring things out in their ownmost] it becomes necessary to free thinking from the ontological difference.” He continues, “From the perspective of appropriation, [letting-presence] shows itself as the relation of world and thing, a relation which could in a way be understood as the relation of being and beings. But then its peculiar quality would be lost.”⁵² What presumably would be lost would be the self-enclosed local character of worlds focused by things thinging. It follows that, as mortal disclosers of worlds in the plural, the only integrity we can hope to achieve is our openness to dwelling in many worlds and the capacity to move among them. Only such a capacity allows us to accept Heidegger’s and Borgmann’s criticism of technology and still have Heidegger’s genuinely positive relationship to technological things.

Notes

1. Martin Heidegger, *Discourse on Thinking*, trans. John M. Anderson and E. Hans Freund, (New York: Harper & Row, 1966) 54.
2. Heidegger’s main example of cultural paradigms are works of art, but he does allow that there can be other kinds of paradigm. Truth, or the cultural paradigm, can also establish itself through the actions of a god, a statesman, or a thinker.
3. Martin Heidegger, *Nietzsche*, Vol. 4, (New York: Harper & Row, 1982) 28.
4. Martin Heidegger, “What are Poets For?” *Poetry, Language, Thought*, (New York: Harper & Row, 1971) 112.
5. Martin Heidegger, “The Question Concerning Technology,” *The Question Concerning Technology and Other Essays*, trans. William Lovitt (New York: Harper & Row, 1977) 5.
6. Heidegger, “The Question Concerning Technology” 17
7. Albert Borgmann, *Crossing the Postmodern Divide*, (Chicago: The University of Chicago Press, 1992) 88.
8. Borgmann, *Crossing* 108.

9. Martin Heidegger, "Science and Reflection", *The Question Concerning Technology and Other Essays* 173.
10. Heidegger, "The Question Concerning Technology" 16 (emphasis ours).
11. See Martin Heidegger, "On the Way to Language" (1959), trans. Peter D. Hertz *On the Way to Language* (New York: Harper & Row, 1971) 132. See also Martin Heidegger, "Memorial Address" (1959), *Discourse on Thinking*, trans. John M. Anderson and E. Hans Freund (New York: Harper, 1966) 46.
12. Martin Heidegger, *What is Called Thinking?*, trans. Fred D. Wieck and J. Glenn Gray (New York: Harper & Row, 1968) 104–109.
13. Robert Jay Lifton as quoted by Michiko Kakutani, "When Fluidity Replaces Maturity", *New York Times*, 20 March 1995, C 11.
14. Michiko Kakutani, "When Fluidity Replaces Maturity."
15. Sherry Turkle, *Life on the Screen: Identity in the Age of the Internet*, (New York: Simon and Schuster, 1995) 263–264.
16. Turkle, 180.
17. Turkle, 180.
18. Turkle, 185.
19. Turkle, 12.
20. Turkle, 192.
21. In his account of brief habits, Nietzsche describes a life similar to moving from one hot group to another. Brief habits are neither like long-lasting habits that produce stable identities, nor like constant improvisation. For Nietzsche, the best life occurs when one is fully committed to acting out of one brief habit until it becomes irrelevant and another takes over. See Friedrich Nietzsche, *The Gay Science*, trans. Walter Kaufmann (New York: Vintage, 1974) §295, 236–237.
22. Martin Heidegger, "The Thing," in *Poetry, Language, Thought*, 182.
23. Albert Borgmann, *Technology and the Character of Contemporary Life* (Chicago: University of Chicago Press, 1984) 196–210.
24. Martin Heidegger, "Building Dwelling Thinking", *Poetry, Language, Thought* 149.
25. Borgmann, *Crossing the Postmodern Divide* 135.
26. Heidegger, "The Thing", *Poetry, Language, Thought* 178–179.
27. Heidegger, "The Thing" 182.
28. Heidegger, "Building Dwelling Thinking" 152.
29. Borgmann, *Crossing the Postmodern Divide*, 27–34.
30. Borgmann, *Technology and the Character of Contemporary Life* 196.
31. Borgmann, *Technology and the Character of Contemporary Life* 199.
32. Martin Heidegger, *Parmenides*, trans. Andre Schuwer and Richard Rojcewicz (Bloomington: Indiana University Press, 1992) 85.
33. See Footnote #41.
34. Borgmann, *Technology and the Character of Contemporary Life* 200.
35. Borgmann, *Technology and the Character of Contemporary Life* 221.
36. In an attempt to overcome the residual nostalgia in any position that holds that technological devices can never have a centering role in a meaningful life, Robert Pirsig has argued in *Zen and the Art of Motorcycle Maintenance* that, if properly understood and maintained, technological devices can focus practices that enable us to live in harmony with technology. Although the motorcycle is a technological device, understanding and caring for it can help one to resist the modern tendency to use whatever is at hand as a commodity to satisfy one's desires and then dispose of it. But, as Borgmann points out, this saving stance of understanding and maintenance is doomed as our devices, for example computers, become more and more reliable while being constructed of such minute and complex parts that understanding and repairing them is no longer an option.
37. Heidegger, "Building Dwelling Thinking" 152.
38. Heidegger, "Building Dwelling Thinking" 152–153.
39. Heidegger, "Building Dwelling Thinking" 153.

40. If we take the case of writing implements, we can more clearly see both the positive role that can be played by technological things as well as the special danger they present to which Borgmann has made us sensitive. Like bridges, the style of writing implements reflects their place in the history of being. The fountain pen solicits us to write to someone for whom the personality of our handwriting will make a difference. When involved in the practices that make the fountain pen seem important, we care about such matters as life plans, stable identities, character, views of the world, and so on. We are subjects dealing with other subjects. A typewriter, however, will serve us better if we are recording business matters or writing factual reports simply to convey information. A word processor hooked up to the Net with its great flexibility solicits us to select from a huge number of options in order to produce technical or scholarly papers that enter a network of conversations. And using a word processor one cannot help but feel lucky that one does not have to worry about erasing, retyping, literally cutting and pasting to move text around, and mailing the final product. But, as Borgmann points out, a device is not neutral; it affects the possibilities that show up for us. If one has a word processor and a modem, the text no longer appears to be a piece of work that one finishes and then publishes. It evolves through many drafts none of which is final. Circulating texts on the net is the culmination of the dissolution of the finished object, where different versions (of what would have before been called a single text), are contributed to by many people. With such multiple contributions, not only is the physical work dispersed but so is the author. Such authorial dispersion is a part of the general dispersion of identity that Sherry Turkle describes.
41. Heidegger writes in "The Thing":

Man . . . now receives instant information, by radio, of events which he formerly learned about only years later, if at all. The germination and growth of plants, which remained hidden throughout the seasons, is now exhibited publicly in a minute, on film. Distant sites of the most ancient cultures are shown on film as if they stood this very moment amidst today's street traffic. . . . The peak of this abolition of every possibility of remoteness is reached by television, which will soon pervade and dominate the whole machinery of communication. (165)

42. Martin Heidegger, "The Turning," *The Question Concerning Technology and Other Essays* 43, where Heidegger claims that our turning away from a technological understanding of being will, at least initially, be a matter of turning to multiple worlds where things thing.
43. Borgmann, *Crossing the Postmodern Divide* 122.
44. Borgmann, *Crossing the Postmodern Divide* 141.
45. Borgmann, *Crossing the Postmodern Divide* 144.
46. Borgmann, *Technology and the Character of Contemporary Life* 199.
47. Borgmann, *Technology and the Character of Contemporary Life* 218.
48. Heidegger, "The Question Concerning Technology" 33–35.
49. Heidegger, "What are Poets For?" 97.
50. Borgmann, *Technology and the Character of Contemporary Life*, 212.
51. To put this in terms of meals, we can remember that in Virginia Wolfe's *To the Lighthouse* arguments about politics brought in from outside almost ruin Mrs. Ramsey's family dinner which only works when the participants become so absorbed in the food that they stop paying attention to external concerns and get in tune with the actual occasion. The same thing happens in the film *Babette's Feast*. The members of an ascetic religious community go into the feast resolved to be true to their dead founder's principles and not to enjoy the food. Bickering and silence ensues until the wine and food makes them forget their founder's concerns and attunes them to the past and present relationships that are in accord with the gathering.
52. Martin Heidegger, "Summary of a Seminar on the Lecture 'Time and Being,'" *On Time and Being*, trans. Joan Stambaugh (New York: Harper Torchbook, 1972) 37.