

PHILOSOPHY OF TECHNOLOGY, 1975-1995

Don Ihde, State University of New York at Stony Brook

Our topic, twenty years of the philosophy of technology, I presume is marking two separate, but related events. First, the ostensible focus is the appearance of Carl Mitcham's *Thinking through Technology*, which expands the borders of the history of technology into a more intercontinental framework, both outward and backward. A second, somewhat vaguer reference is to the history of the Society for Philosophy and Technology, whose meetings go back to its pre-institutionalized past of twenty years.

The role I want to play—but can do only retrospectively and indirectly—is that of “futurologist” to philosophy of technology. In doing so I want to deal with a perspective upon SPT, on one side, and upon what I think to be a shift of atmosphere regarding technologies on the other.

RETROSPECTIVE

If what was to become the Society for Philosophy and Technology began in 1975 (organized fully only in 1981), I cannot claim to have been a charter member. My first meeting was as a respondent to a retrospective on Hans Jonas's work some half a decade after the first SPT meetings. Perhaps that made me a loner in the field of philosophy of technology because I had begun to write about technology and technologies shortly after my dissertation (1964), began to publish articles on philosophy of technology as early as 1974, and subtitled *Technics and Praxis* (1979) a “philosophy of technology.”

The period from the mid-sixties through the seventies was one which saw quite a lot of revolutionary proliferation within North American philosophy. The “Continentalists” formed the Society for Phenomenology and Existential Philosophy (SPEP) in 1962; trailing not too far behind were the feminists with the Society for Women in Philosophy (SWIP); and in the same period, roughly, the origins of the Society for Philosophy and Technology (SPT). I mention these three because each in different ways was initially marginal with respect to special interests not

often dealt with within the dominant Anglo-American philosophical establishment or the American Philosophical Association.

The overall intellectual milieu in the mid-sixties through the seventies was one which had to address the Vietnam War, the growing sense of threats to the global environment, and the rise of feminist, racist, and classist issues in the overall atmosphere of the Cold War.

We are now at the cusp of the 90s, and the global scene has vastly changed. The Vietnam War is over (lost); global communism has collapsed and with it the dominance of Cold War issues; capitalism is reascendent; and, in a shift from the presumed liberal politics of the earlier decades, there has been a revival of ethnic nationalisms, reactionary politics, and neo-conservatism.

My first question relates to how the revolutionary organizations in philosophy which sprang up in the sixties and seventies have fared within this shift? With both SPEP and SWIP the answer has to be thrivingly. Since its beginnings, SPEP has quadrupled in size—it now claims 1400 members; its conferences typically have up to eight concurrent sessions with papers selected from even larger numbers of contributors. It has had a kind of competitive internal pluralism of the varieties of Continental philosophies running from phenomenology through critical theory through the now most fashionable postmodernists and Continental feminists. And it has undergone a generational shift of leadership which is dominated by those considerably younger than the founding membership. Similar developments have occurred with SWIP, which claims 2000 members, and the various feminist philosophical movements which contain "empiricist," "standpoint," and "postmodernist" feminists among them. The same cannot be said of SPT, which still lists under 300 members and whose leadership largely consists of the same faces I saw when I joined in 1981. In short, SPT's trajectory has not matched that of its only slightly older sister organizations. What does this have to say about philosophy of technology, twenty years after?

This is not to say that there are lacking some positive characteristics within the single institutional embodiment of a philosophical society focused upon technology.

STP, like its sister organizations, is pluralistic. Its Deweyans, Ellulians, Marxians, and Heideggerians all come together in pluralistic conversation.

STP has also taken on an internationalist context, first with the German traditions (Bad Homburg, 1981), then with the Spanish speaking world (Puerto Rico and Spain).

And its publications, while going through successive publishers, still exist and appear regularly. New series have also arisen as have numerous individual publications by SPT members, a most recent example of which is Mitcham's book which partially inspires this panel.

But SPT, in size and dynamic, remains marginal when compared with its more glamorous sister organizations. Admittedly, at first glance, technology might seem a narrower focus than the subject matters of SPEP and SWIP, which, in spite of their Continental or feminist institutional perspectivalism, are broader than technologies as such. But, on the other hand, technologies pervade, impinge upon, and are related to virtually every topic which the larger organizations do take up.

By now I find myself positioned in a delicate and possibly dangerous position, both an insider and an outsider with respect to SPT and its current dilemma. Can I give a truly critical account of some reasons for this dilemma without undermining or damning precisely the energies and visions which have kept SPT alive? I shall try.

I begin by turning to the macro-thesis of Carl Mitcham's new book, *Thinking through Technology*. The subtitle announces the theme that there are two broad traditions in the philosophy of technology: an engineering tradition and a humanities tradition. While I disagree with this binary framework, I want to take some serious account of it.

Mitcham's approach does show that whatever may call itself philosophy of technology in the late twentieth century owes its past to at least the nineteenth century. If he is right, that past originates mostly in Germanic contexts, beginning with neo-Hegelianism, but not limited to Marx or Kapp. What he identifies as the engineering traditions also involve neo-Kantians (Dessauer) and

other technically inclined philosophers at the turn of the century. There are several subthemes which should be noted here. (a) Most of the engineering tradition philosophy does not only take technology as a forefront issue, seeing the role of materiality in its relevance to philosophy. Kapp "materializes" bodily, organic functions; Marx "materializes" modes of action and production; Dessauer "materializes" the artifactual as the *noumenon*. The engineering traditions raise materiality to a higher role than traditional philosophies did. But (b) simultaneously, almost indirectly, technologies are taken as value positive. The tone of engineering philosophy of technology is acceptive of technology and technology development. Only later—particularly after World War II—do the necessities of (c) some political and ethical critique and response to the technologies of destruction get accounted for. (For example, the Association of German Engineers [VDI] began its ethical problems approach to technologies at this time.) Note that an acceptive attitude towards technologies—as already in place, followed by the recognition of their capacities, followed by ethical and political reflections which seek retroactively to respond and positively guide these developments—means that the philosophical role is *reactive*. To summarize, the engineering traditions tend to be technically inclined, to take technologies for granted, and to respond by means of ethical and political correctives to any negative applications.

Turning to the humanities traditions among philosophies of technology, Mitcham chooses philosophers and broadly trained humanists who look at the macro-developments of technology vis-a-vis culture. These include Mumford, Ortega, Heidegger, and Ellul. Here the framework has a much larger scale in two related senses: (a) it is the whole range of technologies which (b) is examined in relation to changes which occur in culture or human history. This breadth stands in some contrast to the technicity of the engineering traditions. But it also implies (c) that technologies are more than material, at least insofar as they embody, change, or challenge cultural forms, patterns, or practices.

In turn, this means that the humanities approach opens much more explicitly the way to cultural critique—often, perhaps too often, revealing the prejudices of the critic. In this context, Mumford began with a kind of techno-history, developing deep insights into the technology/culture interface, but as he aged and turned more critical he also began to develop an often distinctively negative critical evaluation of technologies as allowing power dimensions inimical

of human communities. Ortega saw the implicit destruction of the traditions of high culture and the enhancement of “mass man” as related to the technological trajectories of Europe. Heidegger's romanticism toward past forms, Greek and rural Germanic, often not only entered the choices of his examples, but dictated how modern technology could become the very metaphysical framework of late European civilization. And Ellul saw nature itself subsumed under “technique.” Here lie some of the origins of the *Aufhebung* of technologies to Technology with the capital which characterized much of mid-twentieth-century discussions of technology. And the critical cast of these humanists is often negative, if not pessimistic.

Within this binary framework, Mitcham argues for the primacy of the humanities version among philosophies of technology and rather explicitly for the primacy of the critical taken in its often negative sense. But, here, I leave *Thinking through Technology* and return instead to what may be described as a shifting popular set of attitudes toward technologies.

I first focus upon what could be called the dominant technological images of the mid-sixties to the early eighties and the cultural milieu associated with them. These technologies and the public images of them were dominantly military, industrial, and Big Science technologies. The times were threatening with the actual Vietnam War and the pervasiveness of the Cold War. School children huddled under desks during Civil Defense drills, the nuclear bomb, phallic rocketry (culminating in the explosion of Challenger and escalating all the way through the Reagan era Star Wars), submarines able to bombard our coasts, industrial equivalents culminating in the Valdez incident—all of these occupied the media and our consciousnesses. The generations of the late sixties and seventies were often taught through Marcuse's *One Dimensional Man*; and technophobia—because of what we saw daily in our media as the display of technology—was not unjustified. The mega-technologies threatened our nations, our civilization, the environment, and our futures.

Then (still following my imagistic style), in 1989 there was a technological paradigm shift. The Berlin Wall fell and with it all the communisms except in China and Cuba. The Cold War, slowing into the nineties, began to have its military knowledge transformed into environmental knowledge. I have been struck—though an interest in whole earth measurements—how we suddenly have a

full map of the ocean floors, of global temperature and ocean level changes, all displayed in global images previously available only to the military. Instead of hiding under desks, school children run computers in video games, in math program puzzles, in learning to touch type in the third and fourth grades. The supertankers are still with us—now perceived as negative, dinosauric throwbacks to mega-industrial technologies. But they are upstaged by the internet, by technology stocks, and by arguments over computer porn. Find, if you will, amongst our high schoolers or even our elementary schoolers, any vast collection of technophobes. Instead, I suggest, you will find star and space gazing, computer literate students (or more, hackers), who are technophilic. In short, the *atmosphere* has changed. It may be as naive, as overstated, as positively hyped now as it was negatively in the previous period, but it has changed nevertheless. Regarding technologies, the cultural milieu is one distinctly different from that of even a decade ago.

One more detour. After the collapse of communism, the quip that the only Marxists left were those to be found in humanities faculties might be partly true. But, since this previously proliferous breed has a fairly substantial population, the question is, what has happened to them? The answer, I think, is that many have adapted to new situations and new causes. They now staff the barricades of the “culture wars,” defending the newly named proletariats of the gender marginalized, the previously colonized, the racially oppressed, and analyzing the symptomatology of popular culture under the heading of Cultural Studies. In short, academic Marxists have adapted and re-addressed problems within a new milieu.

Returning now to SPT, have we done the same thing? Are we addressing the new milieu? Or are we continuing the same themes arising out of Ellul, Heidegger, and Marcuse? And—although discussion of alternative technologies, “small is beautiful,” and the often neo-paternalism of low-tech appropriate technology for Third (in contrast to First) World cultures has receded—does the same humanistic macro-dystopiansim still provide the umbra for SPT programming? Are we still where we were a decade or two decades ago?

PROSPECTIVE

When I began, I suggested I would like to play the role of futurologist to

the retrospective. To do so is obviously to not very subtly turn towards the imperative. But the first step in such a turn may be one of descriptive analysis. Thus I turn first to a series of dimensional shifts which seem to me have occurred.

Science: Cold War science was obviously the science which could be of use to the militarists and defense industries which dominated the period before the nineties. Thus physics, already long the mega-science of modernity, and the related engineering sciences, with spin-offs into marine, atmospheric, and geological sciences, were favored.

With the milieu shift, this range of sciences has experienced some of the most severe cuts (e.g., the Supercollider); has had to redirect its energies (uses of sub-oceanic mapping, submarine low-frequency signaling, satellite photography to detect climate changes—all made public for scientific uses); and worries about its future (*Science* magazine worries about the future of the science doctorate.) Some of its attempts to recapture mega-dollar research initiatives—such as the proposed multi-billion dollar asteroid defense utilizing SDI capacities—are merely pathetic.

This pause in Big Science growth on the physics side has opened the opportunity for a second set of sciences to be forefronted. I refer to the biological sciences now, with DNA/RNA and associated gene splicing and other biotechnologies the new romanticized frontiers. As this occurs the usual tendencies for greatly hyped, utopian projections again emerge as a new and untried front. The identification of two breast cancer genes seems to suggest a cure is around the corner. The introduction of human genetic material into “Herman the Bull” to breed cattle less likely to cause lactose allergies seems to suggest we can have designer plants and animals for all purposes. Thus scientific utopianism re-invents itself on the new frontiers.

Industry: I have already suggested that the glamorous technologies of industry have also shifted. Mega-tankers and tree-cutters are the remnant bad technologies, while the high technologies (ranging from computers, the network, high definition television, and satellite communications to scanning systems) and the exploding spectrum of imaging processes (from digital photography through MRI and PET scans, to acoustical technologies) now capture the imagination in science, entertainment, and even the home media center. These are the new good

technologies which connect peoples, companies, and universities together. These information technologies, their proponents argue, are unlike the previous industrial megatechnologies.

Cultures: All late modern technologies, the bad, the good, the ugly and the beautiful, have brought together the world's cultures, religions, and ethnic groups. The results span the full spectrum from the tragic to the comic. For the moment, gone are the superpower wars or the fears of superpower wars. Replacing them are the varieties of terrorisms, from the threat of nationalistic fundamentalisms to the home grown variety of anarchistic militias. But equally and alongside these are the new transformations which occur within secular pluralistic settings.

Politics: The new context is one of emergent extremism, and not only in our "Gingrich Revolution." (How can a step backward be called a "revolution"? Shouldn't it be called a "retrogression")? Is the newly emergent ideological freneticism itself a creation of media saturation?

Much has changed, and while I have no time to trace out the particulars, do not many of the changes relate to the contexts of our technologically saturated times? What non-neutral roles do the communications networks, the media with their imaging, play in the situating of each of these dimensions? Surely these are tasks for the philosopher of technology, and tasks which call for much more refined and particularistic analyses than those allowed under the too high altitude and too vast generalizations of "standing reserve," the victory of "technique," and the "alienation of labor."

In short, this cultural-attitudinal shift calls for a rethinking by philosophers of technology of both the subject matters which get addressed, and of the terms of a balance between the hyped utopian and dystopian temptations of both the past and the present. In one sense this recommendation is very traditional. It is simply a call for balanced, critical, and reflective thought about where we are in *today's* technologically saturated world.