Chapter 10

Don Ihde and the Hermeneutics of Technological Perception

Don Ihde, Carl Mitcham, and Albert Borgmann are probably the three SPT philosophers who are most widely known. Ihde (1979, 1983, 1990, 1993) has written more than the other two combined, and is universally praised among philosophers of technology. Nevertheless, his appearances at SPT meetings have been sporadic, though he has been a board member. Those appearances are only a tiny fraction of the appearances Ihde makes and the talks he gives all over the world. About Ihde, Mitcham says: "[He] not only wrote the first monograph on philosophy of technology in English, he has also produced the most extensive corpus devoted to the subject and has established a book series devoted to philosophy of technology" (1994, 78). On the other hand, Mitcham also raises questions about Ihde: "In light of the importance he gives to technology in human experience, his strong sympathies with pragmatism, and his criticisms of the critics of technology, . . . it is not clear to what extent his phenomenological philosophy of technology is truly other than a sophisticated and subtle engineering philosophy of technology"—as opposed to the "humanities philosophy of technology" that Mitcham favors (see Chapter 1 above).

Someone might fairly describe Ihde as standing outside though alongside SPT. But Ihde's philosophical position has earned for him academic success beyond most members of SPT. I think it is fair to say that the standards by which his work should be judged are Continental rather than—but especially in opposition to—anglophone analytical. (Ihde was a leader in the anti-analytical battles in the American Philosophical Association in the 1980s; see Mandt 1986). In spite of Ihde's fine-scale focus on particular kinds of technology-mediated experience, nevertheless his dependence on Heidegger, Merleau-Ponty, and especially Husserl—however much he personalizes his own account using them as sources—suggests that he would want to be measured by comprehensive-synthetic standards. If so, I think it is safe to say that, in spite of the large corpus of works Mitcham refers to, Ihde has not yet produced a comprehensive magnum opus on our technological world. Perhaps he has been too busy—editing his philosophy of technology series, speaking all over the world, and turning those speeches into relatively small-scale books—to produce that comprehensive magnum opus. (In a personal message after reading this, Ihde wrote me: "As far as a magnum opus, systematic, totalistic book—I never intended one, never promised one, never will do one".)

My focus here is on what Ihde has written so far. I begin, however, with someone else's treatment, in a volume put together by a group of Dutch philosophers under the editorship of Hans Achterhuis. And the Achterhuis collection, midway through the book, turns to Ihde—longtime professor and chair of the philosophy department at the State University of New York at Stony Brook, and general editor of the Indiana Series in the Philosophy of Technology, in which the volume appears. Ihde's thought is there presented by Peter-Paul Verbeek.

Here is how he starts his summary of Ihde's thought: "Ihde . . . is a pioneer in two respects. First, he was one of the earliest philosophers in the United States to make technology the subject of philosophical reflection. He published his first book on the philosophy of technology, *Technics and Praxis*, in 1979, [and this was just] the first of over half a dozen books he has written in the field" (p. 119).

Verbeek says the second pioneering aspect of Ihde's work was "to apply to the study of technology the tools of the phenomenological tradition at a time when it was far out of the philosophical mainstream" (p. 119). This happened more or less in step with Hubert Dreyfus's applications of the same tradition to Artificial Intelligence. Verbeek does not make the connection, but presumably the volume editor, Achterhuis, would have us consider both Ihde and Dreyfus to be phenomenological pioneers outside the American philosophical mainstream in the 1960s to 1990s.

Whatever, Verbeek concludes his essay this way: "Ihde's work offers an entirely different perspective on technology than that of traditional phenomenology." Verbeek goes on: "The difference between Heidegger and Ihde stems from a difference in the ways in which each conceptualizes technology. . . . Ihde's approach . . . does not begin with [Heidegger's] world-interpretation, but with our dealings with . . . concrete technological artifacts" (p. 144). If there is anyone among the philosophers discussed in this volume who best exemplifies the transition from "transcendental" to "particular and pragmatic looks at [particular] technologies" (p. viii, referring to p. 6), it is Ihde himself.

As early as 1979, I had reviewed Ihde's first book in the field (see *Humanities Perspectives on Technology: Curriculum Newsletter of the Lehigh University HPT Program*, April). Here is what I said: Don Ihde's *Technics and Praxis* is the first full-scale philosophical analysis of technology by an American to appear in

English. . . .

Considering the importance of Martin Heidegger's work in German philosophy of technology—the dominant school so far—it is appropriate that Ihde's pioneering effort is an extension and adaptation of Heideggerian themes. Ihde's relation to Heidegger is not a simple one. On one hand Ihde begins with Heidegger: 'His analysis of tools pointed out that in use the tool 'withdraws' because what is focal is the 'work.' At the same time, he allowed for the disappearance of such transparency when the tool or instrument breaks down' (p. 28). Ihde even recommends . . . that the reader begin with Chapter 9, 'Heidegger's Philosophy of Technology.' On the other hand, Ihde says: 'In spite of the phenomenological correctness of Heidegger's analysis, the negative way in which the instrument emerges from transparency in use in his analysis casts a sense of disvalue. . . . In this essay I shall attempt to show . . .that what may be called instrumental opacity takes on positive phenomenological characteristics' (p. 28).

This is Ihde's thesis, a contention 'that the use of such [technological, especially scientific-information-gathering] instruments—or any technolological artifact—is non-neutral.' Ihde immediately adds: 'I use this term very carefully and deliberately to suggest that there is some kind of transformation of experience in the use of instruments but I do not wish to suggest that this transformation is ipso facto either essentially 'good' or essentially 'bad'' (p. 16). In fact what Ihde ends up arguing is that instrument-embodied scientific knowledge, while it is good in the sense of expanding our horizons, can be bad if we come to think of the reduced-focus objects of technologically-enhanced science as the real world, as more real than the objects of ordinary everyday perception and experience. . . .

What Ihde offers in support of his thesis is what he repeatedly calls a 'close, phenomenological analysis' of technology, and more particularly (a) of the instruments that embody contemporary Big Science, and (b) of visual and information-oriented instrumental technologies. One clear instance and description of such an analysis comes in Chapter 6, 'Technology and the Transformation of Experience.' There Ihde says: 'I now begin the examination of technological transformations of [the] invariant set of direct perceptual structures. I shall here employ a set of variations upon visual instruments in what would be recognized as a typical [Husserlian] phenomenological exercise in the use of free variation, the aim of which is to isolate essential features or structures which are to be exhibited through the variations' (p. 70). The examples are

looking through a telescope at the moon, seeing objects through a microscope, and 'infrared projection'—e.g., in looking for diseases in plants. These varying analyses, according to Ihde, reveal an 'essential magnification-reduction structure'—that is, an expansion of direct visual (plus background) experience, necessarily accompanied by a reduction in field or a screening out of all but the desired objects. In the process of demonstrating this, Ihde draws one of his main conclusions: 'This is historically what characterizes modern as contrasted with much ancient science. Modern science is technologically-embodied' (p. 77).

Okay, so now we need something from Ihde's vast corpus, and what I suggest is his own self-characterization in his *Philosophy of Technology: An Introduction* (1993; pp. 111–115; a serious student might want to add detail from *Technics and Praxis*, 1979, and *Existential Technics,* 1983).

"Human-technology relations, patterned after a phenomenological analysis of human intentionality [see *Technics and Praxis* and *Existential Technics*], purport to show what is invariable in the ways humans experience their technologies. For example, *embodiment relations* are uses of technologies which enhance (and non-neutrally transform) our perceptual-bodily experience of an environment or world.

"In the case of science, the early use of optical technologies, such as telescopes and microscopes, revealed worlds heretofore not expected. But the very magnificational powers of early optics also oriented inquiry towards the *macro- and microworlds* revealed. As such, the instrument transformed not only what was seen, but its scale in relation to noninstrumental vision.

"What emerged from the analysis as a structural feature of instrumental use, was what I called a magnification-reduction transformation. For every enhancement of some feature, perhaps never before seen, there is also a reduction of other features. To magnify some observed object, optically, is to bring it forth from a background into a foreground and make it present to the observer, but it is also to reduce the former field in which it fit, and—due to foreshortening—to reduce visual depth and background. Such non-neutral transformations belong to all technologies.

"If embodiment relations enhance (and reduce) bodily-perceptual experience, *hermeneutic* (interpretive) relations take another mode of reference to observed objects. Here the analogue is to reading and language rather than sensory

perception, and is exemplified in instrumentation which uses various forms of measurement (dials which use numbers or spectra, etc.). The object is still being referred to, but is now translated into a dial reading which indicates some more abstract (and thus more reduced) aspect of the object, such as weight or heat. And the process requires a special reading skill which knows how the instrument refers.

"Both such human-technical relations exemplify ways in which humans—with technologies or instruments in a mediating position—experience an environment or world in a new or technological way. But such activities do not exhaust human-technical relations as others are of a more background character. For example, automatic or semi-automatic machinery—such as Borgmann's example of central heating—may function in the background and not occupy any focal attention. One may be experiencing the heat, but barely if at all aware of the switching which is going on and off (unless the system breaks down). Here technical systems begin to function as quasi-environments or technological cocoons within which our daily lives play out.

"It can be seen from this early set of examples that many of the features of technology in my analysis correspond to similar features in Winner and Borgmann. Like them, I was arguing that technologies are non-neutral and function in the human context like forms of life or worlds . . .

"Nor does the transformation of human experience stop with the directness of sensory or first person experience. In *Existential Technics* (1983) I turned to some of the reflexive ways in which a growing technologically mediated experience of the world reflected back upon such phenomena as human *self-interpretation* and its cultural variants. . .

"While both the above works were, in some sense, preliminary, *Technology and the Lifeworld* (1990) much more systematically outlined the theory of the technological lifeworld which I see. Like Winner and Borgmann, my approach has been one which takes patterned praxes as basic. Such patterns form gestalts which change from human historical period to period, and also from *different human cultures*. But there is both a structure and a variant upon structure to the human experience of technology, I argued.

"Human-technology relations—such as those which implicate our bodily-perceptual activities—are structurally crosscultural. And in *Technology and the*

Lifeworld I drew from both many historical and different anthropological contexts to show how this was the case. But at the same time, technologies in the ensemble are also *culturally embedded.* . . .

"To this point, one might see much in common with the analyses of Winner and Borgmann, although the perspective of *Technology and the Lifeworld* is much more multicultural than the more standard Western orientation of their works. However, when I turned to the strictly contemporary issues also discussed by Winner and Borgmann, a certain set of differences emerged.

"Both of [them] hold that modern technology is now a world phenomenon, and I agree. Both take it that such technology 'goes where it has not been' or moves toward a kind of totalization, and I again agree. But, I argue, the totalization is *presumptive* and at this juncture is beginning to show signs of serious strain which may harbor quite different directions.

"Modern technology and technoscience is clearly an invention originating in Western culture. It has clearly 'englobed' the Earth. But that is, while dominant, only one outward and expanding moment. I argue, with a metaphor of a tide with an undercurrent, that the undercurrent is one in which increasingly the underside of the dominant is the growth of two closely interrelated phenomena: (a) the first is the non-avoidable awareness of *Others*, i.e., non-Western cultures. This awareness is part of the communication technologies, particularly the image technologies (such as television, cinema, and all forms of visual networking) which daily brings us exotic cultures and makes clear the conflicts between cultures. . . . But (b) secondly, this multicultural undercurrent is itself multiple. In our image technologies, it is fragmented into culture bits which, in turn, become part of the now *postmodern* awareness. . . .

"I then argue that what is distinctive about the emergence of a postmodern moment is a different kind of vision—a *plurivision.* . . .

"However, this is not to say that this divergence from the set of worries exemplified by Winner and Borgmann are absent here; they merely are taking different form and direction. Our biggest worries, I am arguing, ought to be *global*, first in the sense of concern for the Earth's environment, and second, in finding post-enlightenment means of securing intercultural (and thus also interpolitical and intersocial) modes of tolerance and cultural pluralism. The first entails *limits* as Winner enphasizes, and the second a new species of intercultural

agreements which also must *limit* the cultural-religious forms of negative totalization which today characterize many global conflicts."

With respect to *controversial* issues, throughout *Philosophy of Technology*, Ihde shows himself again and again to be admirably conscious of his relationship to friends and foes. For example, with respect to Mitcham (and some other early philosophers of technology in the USA), Ihde defends not only the importance but the type of small-scale studies he prefers. His chief differences with respect to Heidegger have to do with creating a hybrid by going back to insights from Husserl. He relates his work to an increasing number of philosophers of science who have something to say about its relation to technology: from feminist Sandra Harding to Patrick Heelan (like Ihde, also phenomenological) and Ian Hacking (more traditional), through Bruce Ackerman and Peter Galison on instrumentation (Ihde doesn't mention Pitt, but his focus on instruments in science shares some aspects), even including Bruno Latour—and all of these are interpreted as opposing earlier positivistic approaches. With respect to Langdon Winner and Albert Borgmann, Ihde thinks his differences are minimal: they are too Western in their emphases, rather than global, so do not include a "plurivision" focus and an effort to promote tolerance and a concern for the global environment. With respect to Hans Jonas (see Ihde's *Technics and Praxis*), Ihde would "positivize" the human relation to technology by contrast with Jonas's negativity. Ihde lumps Marxists together with Winner, but only in terms of the view that a "different mode of production results in different social relations." Ihde often mentions Dewey (sometimes via Hickman), along with Heidegger, as an early forerunner on subordinating science to technology—but also as preceding Latour and other "technoscience" authors in erasing the distinctions between science and technology, especially within Big Science. Ihde's relationship to pragmatism may be a point on which he is not as admirably clear as on the other points (see Chapter 14 on Hickman).

In all of this, Ihde insistently pushes his own interpretation, even when, toward the end, he moves far away from a small-scale focus on technologically-mediated perception—together with the cultural contexts he says that entails—to the global issues of worldwide environmental degradation, of a "pluriculture" that supersedes the old notion of one-directional technology transfer, and of international justice issues that he feels are affected significantly by military technologies, including their proliferation in so-called under-developed cultures.

Ihde's larger role in the philosophical community in the USA in the mid-eighties,

defending Continental (and other non-analytical) philosophical approaches against the dominant analysts—perhaps along with his editing of the Philosophy of Technology series for Indiana University Press—make him a special case here. It is noteworthy, for example, that Pitt and his friends chose Heidegger as their focus of attack rather than Heidegger-based Ihde. So, as with phenomenology generally, the *big* issue here is not analysis versus anti-analysis, but whether or not phenomenological analysis is just as important philosophically as the sort of analysis commonly found in philosophy of science circles.

One last item in the context of the present book: Ihde has recently done his own analysis of the place of philosophy of technology in academia, in "Has the Philosophy of Technology Arrived? A State-of-the-Art Review" (*Philosophy of Science* 71, January 2004, pp. 117–131). Ihde's view is that it has not arrived, in spite of potential cultural importance, mainly because of a series of unhappy misfortunes.

Next we turn to Pitt's other arch-foe, Langdon Winner.