I was asked to summarize the book *Bodies in Technology* by Don Ihde for this session. So I will do just that. I will outline the main points of the project and offer three points of discussion further below, toward the end.

The book begins by generally addressing the concern that Virtual Reality (or VR) will “replace” Real Life (RL), or that it will otherwise affect Real Life in a particular way. And it is this concern that Ihde proposes to alleviate.

In order to set up his argument, he begins by maintaining that there are two inadequate ways of understanding embodiment. The first is the phenomenological one, the one described by Husserl and Merleau-Ponty, represented here in Ihde’s terms as “body one”. Body one has general characteristic abilities such as spatial orientation and motility, as well as perceptual abilities and emotions.

“Body two”, then, is Ihde’s designation for the postmodern view of embodiment, such as that of Foucault. Adherents to body two’s depictions focus on embodied experiences that are culturally constructed, such as the fact that erogenous zones differ from culture to culture.

Body one is inadequate because it fails to account for the productive effects of the social or cultural system, and body two is likewise inadequate because it fails to account for any general constancy or agency. When placed in the context of technology, descriptions of body one tend to suggest that the body at its core will remain distinct and be unaffected by technology, whereas body two tends to conclude that technology will affect real life too much.

Throughout the project, Ihde wants to maintain that there is rather a “body three” which cuts across and is an improvement on both these views. He further maintains that body three is exemplified in the relation of the technological body, or, more precisely, embodied experiences of (in, and with) technology. Body three is *interactive with* technology, and thereby both constitutes and is constituted. It is a reciprocal embodied interaction, although it is asymmetrically so. Understanding the relation of embodiment in technology shows that, in actuality, neither of the above two views adequately accounts for embodied
experiences in general. And in the end this will also show that experiences with technology or Virtual Reality will neither eclipse nor definitively affect Real Life embodiment.

In carrying out this project, Ihde also pits modern descriptions of embodiment against postmodern ones. This dichotomy has similar features to the phenomenology/postmodern one, which again are best accounted for in a better understanding such as the one depicted by his “body three” proposal. In this sense, it appears that Ihde generally relates modernism with phenomenology, at least in some sense. More on this below.

The project is organized into four parts of two chapters each. In the first part, Ihde gives a brief phenomenology of both embodiment in virtual experiences and embodiment in general. He makes the preliminary argument that from military simulators to examples from the movie *The Lawnmower Man* to medical prostheses, the experience of Virtual Reality is qualitatively distinct from Real Life. Those who experience Virtual Reality know full well that they are not experiencing Real Life, even though they are physically adaptable to or interactive with the simulator or prosthesis. Their experiences of interaction with technology are not the same as experiences apart from such interactions. He moves from this point to an example of the way that male sports bodies (particularly during adolescent period of identity formation) illustrate the problems with phenomenology and postmodernism. At one extreme he proffers Merleau-Ponty’s phenomenological body as an anonymous active one and at the other he places Foucault as maintaining that all meanings are produced, down to the level of embodiment. Neither, he claims, are satisfactory explanations. He illustrates this by detailing the way that adolescent males both constitute and are constituted in their social milieu with and by their bodies. For example, particular size either prohibits or allows entrance into certain sports, and the subsequent experience and valuation of that experience is *interactive with* the individual. This sets up the parameters for the rest of the discussion.

Part Two considers the ways in which scientific research is, in effect, a form of virtual reality and moreover, that science and virtual reality exhibit similar features. He begins this by considering that the dominance of the visual in science has a specific history and that it was a choice among other possibilities, and that consequently it is not the sufficient or singularly necessary method of relaying and perceiving information. In this respect, Ihde gives interesting examples of how the possible alternative of auditory methods of research gave
way to visual. He notes that “while early sonar was both conducted and interpreted auditorily (the observer...trained to detect location and direction by the ping sound and time spans) more recent perfection of the instrument yields a visual display where the target is figured against a topographical ground” (Ihde 2001, 55). Further, although scientific methodology (based as it is on traditional modern views of the body as object) is designed to minimize other bodily engagement (beyond the visual) it cannot completely do so. Our whole body is interacting, even when we try to avoid its happening. For example, “the crude telescope”, he tells us, “magnified Galileo’s own minute bodily movement just as much as it did the Moon object. Galileo had to learn to compensate for this by using a tripod, and by careful...bodily motion.” (59).

After making the case that the visual has been selectively prioritized in science, he moves to a consideration of perceptual reasoning and hermeneutics, while continuing to describe the role of the visual in science. (In fact, the above quotes actually came from this section.). In this chapter, he continues to exemplify the interactions between humans and the material products and apparatuses. All visual data is interpreted and moreover, transforms perceptibility—for example, through inversion, magnification or coloration, of the represented “seen” object. Thus it is impossible not to translate just as it is impossible to remove oneself from one’s whole bodied experiences, despite efforts to minimize embodiment in experimental settings and to achieve “objectivity”.

In the third part, Ihde considers further the question of bodies interacting with science, this time addressing in the abstract the manner or way in which such interaction occurs. He begins this section with a chapter-long consideration of whether interaction between humans and nonhuman technological apparatuses (which he simply calls “non-human”, but which I take to be too broad a term) can possibly be symmetrical as some, primarily Nancy Hartsock, Bruno Latour and Andrew Pickering, have claimed. He concludes that characterizing such interactions as symmetrical is implausible once they are understood as “situated”. This is at least partly because one cannot be symmetrically situated and partly because a claim of symmetry collapses into the modernism that postmodernism seeks to avoid.

In the next chapter of this same section, Ihde continues his evidence against symmetry, claiming that even if nonhuman technological artifacts have made an “appearance” and have affected humans, their appearance has been neither uniformly described nor have their reporters come to a consensus about them.
Ihde concludes here that “human/technological apparatuses” interaction cannot be symmetrical, at least not in most contexts, since in fact their interrelation is much more broad complex and variable than symmetry implies.

As an example here he considers the NRA slogan “Guns don’t kill people, people kill people” (an example which he mentions that Bruno Latour similarly used). “The relations of human-gun (a human with a gun) to another object or another human is very different from the human without a gun” (93). Obviously there are complexities at work in this interaction. Also, he claims that moderns had interactions as well with nonhuman machines, e.g. Umberto Eco, whose books are filled with human interactions with nonhuman instruments and devices. This point is made to show that despite modern or postmodern claims, human interaction with nonhuman instruments has always been asymmetrically reciprocal in the way Ihde describes, and despite either modern or postmodern claims to the contrary.

His abstract sketch is followed, in Part Four, by a concrete call for the bodies of philosophers to literally be present at the research and development phases in the fields of technological application such as medicine, environmental engineering, etc. Ihde begins to wind up the project by calling for the inclusion of philosophers in applied ethics and in the Research and Development stages of technological implementations. This he advocates despite the difficulties and complexities involved in definitively predicting the effects of technology. This difficulty he rightly points out is due to the multiple possible directions and meanings “latent” in any human-artifact interaction. However, the difficulty involved in prognoses is something of which philosophers are aware and which they should be particularly adept at understanding. Finally, he considers the possibility that technology is not by itself responsible for the state of the environment, followers of Heidegger’s Essay Concerning Technology and the claims of Deep Ecologists notwithstanding. Instead, he maintains that environmentalists and scientists can work together with philosophers of technology to find reasonable solutions—and this collaboration is something that has not been tried adequately to date.

In the Epilogue, Ihde reconfirms the convergence between scientific technologies and other image-based technologies used in computers for business and home, medical technologies, media, and entertainment technologies. Ultimately, he concludes that not only will Virtual Reality in any of these senses not actually “replace” Real Life, but more than that, Virtual Reality will not necessarily affect
Real Life in any particular, determining way. And that is because our embodiment is as it always has been, in Real Life—it is engaged in multiple and various possible ways with the world around it—and in the present culture, this engagement is with technology, all the way down to the private, home, level. But because of the resiliency and adaptability of our embodiment, combined with the facts that we are not symmetrically affecting technologies (as though they were equal mirrors of or subjects like ourselves), and that technologies can reveal multiple possible meanings, we have various possible ways of interacting with it and understanding it. And thus we are not necessarily doomed by technology any more than we are guaranteed utopia by it.

And now for the unpleasant part. This book was illuminating and I thought about technologies in different ways as a result of reading it. I especially appreciated the reminder that current VR technology shares so much with science throughout its history, because it reminded me that nothing radically new and abrupt is necessarily taking place to transform our very bodies and “souls”. (But of course, that transformation does remain among the possibilities…) But in any case, the role of a critic in an author-meets-critic session is, if not to criticize, then at least to raise points of discussion. So here they are.

1. Ihde seemed to me to equivocate between phenomenological descriptions of embodiment (those of both Husserl and Merleau-Ponty) and modern/scientific understandings of the “subject”. It is not entirely clear whether Ihde perceives a real distinction between modern views of the bodied subject and phenomenological descriptions of embodiment. Now I may be wrong about this, inasmuch as Ihde is clearly doing a phenomenology, and moreover, he explicitly says that “Body one is not the object-body subsumed under the mechanical metaphors of Cartesian early modernity” (69). And yet it simply is not clear to me what the difference between a phenomenological body one and Ihde’s body three is. Let me elaborate. Granted the point that the extremes of modernism or scientific claims on the one hand and postmodernism on the other function in the way Ihde describes, I want to suggest rather that phenomenology, especially Merleau-Ponty’s version, is in fact compatible with Ihde’s project and notion of body three. Essentially, I believe that Merleau-Ponty’s phenomenology is the pivotal point between Husserl’s phenomenology and the poststructuralism of Foucault, and as such, Merleau-Ponty’s views are akin to those of body three which Ihde proposes. Take for example, Ihde’s discussion of the adolescent male sports body. He says “At bottom the anonymity of the active, perceiving bodily being [Merleau-Ponty] seeks to elicit could be said to be both preconceptual and
precultural.” (17) But actually, Merleau-Ponty’s description of embodiment is that, although it is pre-reflectively experienced, it is certainly not pre-cultural.

Merleau-Ponty maintains that we are primarily and always open, bodily, to the world. In addition, he makes statements throughout his work such as that “to feel one’s body is also to feel its aspect for the Other” (1969, 245). For him, we develop all of our understanding through an exchange with others and never pre-exist the cultural in any sense. We have no pre-interactive body and we have no pre-social understanding or way of apprehending the world (or even ourselves). We are aware of our own body both as lived and as experienced by others. We come to understand the world, and even ourselves, through this reversibility, which comes from a primary attitude of empathy or attunement with others. Our understanding of ourselves arises together with understanding ourselves for others, and understanding others.

Our embodied reversibility with the world means that we have no privileged access to understanding our own behavior. There is no primacy of interiority over exteriority or of introspection over the meaning explicit in our behavior, for him. Because we are primarily embodied being-in-the-world, we rely on our intersubjectivity and interactions with the world in order to interpret our own behavior. He says that:

Each time I find something worth saying, it is because...I have managed to think about it as I would think about the behavior of another person whom I happened to witness. In fact, young children understand gestures and facial expressions long before they can reproduce them on their own; the meaning must, so to speak, adhere to the behavior (1964, 52).

He also says that “the phantoms of ‘internal experience’ are possible only as things borrowed from external experience. Therefore consciousness has no private life” (1992, 27).

Consequently, not only do we disclose meaning in the world, but others can disclose or interpret the meaning of our own behavior. This maneuver serves to further underscore our basic intersubjectivity. The meaning of our own behavior can be interpreted by us but it can also be interpreted by others, and from their perspective. Subjectivity is already always intersubjectivity, and cultural (or, in poststructuralist terms, the production of subjects is possible because we “are” in
some ways, always-already open to the cultural world in order to “be produced”). In the end, then, Merleau-Ponty’s views are compatible with Ihde’s.

2. My second comment is related to the first and basically just sums it up. I would have liked to have seen more discussion of how Ihde’s version of embodiment is qualitatively distinct from Merleau-Ponty’s phenomenological descriptions—because I see them as an extension of those descriptions into the context of science, Virtual Reality, computer technology, etc. It seems to me that his body three is a phenomenologically described, interactive, reciprocal body of the Merleau-Pontian variety.

3. I have some reservations about Ihde’s claim to walk the line between utopia and dystopia in considering the state of the environment, toward the end of the project. Although I generally agree with his views that technology does have various potential effects and variant latent possible meanings, I disagree that it is, in fact, being applied in this neutral way. In other words, although I align myself with Ihde’s claims regarding technology and his recognition that technology is not inherently environmentally destructive, and also with his call for philosopher participation; still, I worry. Take for example, his claim about driving a Subaru: “Our new Outback gets more than three times the mileage [than my old Buick Roadmaster of college days]” (p. 121). This claim seems to inflate the preponderance of Subaru Outbacks and downplays the ever-increasing fleet of SUV’s motoring across the suburbs of the nation. For example in 2001 of all “new light vehicles” sold in the U.S. (17.1 million of them) over half were the notoriously fuel-inefficient trucks. (This according to the National Automobile Dealer’s Association at www.nada.org) And again, he says optimistically of recycling that it is a “multinational process” (p. 124) and yet we, down in Texas, don’t even recycle yet. This having been said, and emphasizing for the third time that I agree with Ihde in theory, I believe that we have more to worry about in terms of the environment and the political climate and the role technology is playing in that political climate, than Ihde represents here (Clean Air Act, Logging in NW forests still/again). Of course, who could have foreseen the most current state of affairs? Still, in light of the idea that technology does not necessarily lead to dystopia, what are we supposed to do if, in fact, we are headed towards one?
Bibliography

Ihde, Don. *Bodies in Technology*. Minneapolis: University of Minnesota. 2001


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\(^1\) Yes, this is the proper term for more than one apparatus…odd.