BOOK REVIEW

Peter-Paul Verbeek, What Things Do: Philosophical Reflections on Technology, Agency and Design

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How often does one find a book on philosophy of technology that is philosophically rewarding, interesting for sociologists *and* suitable for teaching engineering students? Peter-Paul Verbeek's *What Things Do* is such a book. In this insightful examination of the technological mediation in human action, he both poses new philosophical and societal questions, and offers a new way of bringing ethics into the practice of designing technical artifacts. By ''technological mediation'' Verbeek means to refer to the way technological artifacts co-shape human action and perception, e.g., cars co-shape the perception of distance, cell phones co-shape ways of socializing, and the microwave co-shapes eating habits and family life.

As Verbeek notes in his introduction, this new way of examining such mediation is mainly based on a combination of philosophical theories about technological mediation and agency, and actor-network theory (ANT). ANT has its origins in the social network analyses done by sociologists to understand how some individuals and groups influence society. Bruno Latour [1], Michel Callon [2] and others have extended this approach to include networks of humans and artifacts, especially in the analysis of the processes by which engineers come to settle on one design rather than another in their professional work.

The main body of the book is divided into three parts. Part one starts with a critical review of what Verbeek calls the ''classical period'' in the philosophy of technology, as in the work of philosophers such as Karl Jaspers and Martin Heidegger. For instance, Verbeek argues that their (transcendental) methodology only looks ''backwards'' to what must be presupposed in order to make technology possible. They try to understand technology by philosophical reflection on socio-historical trends and metaphysical assumptions. Verbeek, however, is more

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interested in looking forward to the role technologies play in our cultures and daily lives.

Part two turns to a consideration of contemporary philosophers such as Don Ihde and Latour, who try to understand the role of technologies in culture. Here Verbeek works to unite Ihde's understanding of technological agency with Latour's ANT-based analyses of non-human agency. With this discussion Verbeek bridges the gap between the philosophy of technology, and Science, Technology and Society (STS) studies. Although Ihde [3] and Latour [1] have opposed their concepts of agency, Verbeek argues that the difference between them is not as great as they claim: both understand agency in terms of abilities to mediate.

Verbeek distinguishes between what he terms hermeneutical and practical mediation. Hermeneutical mediation refers to how technological artifacts co-shape perception. In this, he draws heavily on Ihde. Practical mediation, emphasized more by Latour, is about how technological artifacts co-shape human actions and lives.

Part three of *What Things Do* turns from philosophers ''to the things themselves.'' Going beyond the theories of Ihde, and Latour, Verbeek aspires to develop a ''material aesthetics.'' Material aesthetics is a form of aesthetics that is concerned not only with the visual appearances of things, but draws attention to the products themselves and how they interact with the world and mediate human experience. This kind of aesthetics should be ethically informed and take into account both hermeneutical and practical mediation.

With this last part, Verbeek achieves two aims. He writes at once for philosophers, STS scholars and engineers, and he articulates a new theory of technological mediation and material aesthetics. This makes the book well worth reading for research and use in class, as I have personally experienced when teaching undergraduate students in industrial design.

In many university programs, students in science and engineering are required to take classes in ethics and/or philosophy. A problem many teachers experience is that students have difficulty understanding the relevance of philosophical or ethical theories. By reading the book backwards, that is, by turning from the introduction to part three before reading parts one and two, one can show students how engineering and design might profit from philosophical and ethical reflection. This approach yields general academic knowledge and skills—such as analyzing texts and becoming acquainted with some of the most important philosophers of technology—in a manner that draws students into their relevance.

However, one critical remark is appropriate. In adopting the theories of Ihde and Latour, Verbeek might have been more critical of their vocabulary. Especially when applying ''agency'' to technology, Verbeek runs the danger of anthropomorphizing. In daily language and in other fields of philosophy this word is used to describe special capacities of human beings in relation to non-humans. When writing a book for an interdisciplinary and multi-levelled audience, Verbeek's specialized use can be misleading because he only means ''having the capacity to co-shape human action and perception''.

But with this caveat, *What things do* is to be highly recommended for all involved in the philosophy of technology or in the design of technological artifacts.

References

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3. Ihde, D., & Selinger, E. (2003). *Chasing technoscience: Matrix for materiality*. Bloomington: Indiana University Press.