

Book Review: Moralizing Technology

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Review of *Moralizing Technology: Understanding and Designing the Morality of Things* by Peter-Paul Verbeek (The University of Chicago Press, 2011). ISBN: 978-0226852911. \$75, hardcover.

Heeding Hans Achterhuis' plea to "moralize technology" (Achterhuis, 1995), Peter-Paul Verbeek has developed a novel approach to the ethics of technology in *Moralizing Technology*. As the book's title suggests, the key is that philosophers should not just "analyze" ethics but also "do" ethics by encoding morality into technical design. In that sense, it is in line with the spirit of Karl Marx's practical philosophy: "The philosophers have only interpreted the world in various ways; the point however is to change it" (Marx, 1845).

If his last book, *What Things Do* (Penn State University Press, 2005), is just "a starting point" (Feenberg, 2009) on this path, then *Moralizing Technology* takes us further down the road. In *What Things Do*, Verbeek analyzed the transcendental feature of "classical" philosophy of technology (Part 1) and elucidated the theory of "postphenomenology" or technological mediation by using the works of Don Ihde, Bruno Latour, and Albert Borgmann (Part 2). But he only provided a brief description of the moral implications of his theory of technological mediation for technical design (Part 3).

Moralizing Technology greatly advances this third part of *What Things Do*. It establishes a comprehensive and systematic theory of and strategy for doing ethics in technical design. The opening chapter on "mediated morality" sets the stage with a critique of classical and contemporary theories of ethics and technology and an introduction to Verbeek's own approach. The following chapters in turn: develop a nonhumanist ethics of technology (2), situate artifacts in morality (3), redefine the autonomous moral subject as a technologically mediated subject (4), expand and systematize the place of morality in design (5), apply the concepts and approaches developed to the context of ambient intelligence and persuasive technology (6), confront radical technological changes to human nature (e.g., brain implants) that go beyond the concept of mediation (7), and set moral mediation in the broader context of philosophy and ethics of technology (8, conclusion).

The book has a refreshingly clear structure. First, it introduces the theory of technological mediation, which provides the foundation for further discussion. Next, it indicates the moral implications of this theory, which can be divided into theoretical and practical dimensions. Based on these analyses, Verbeek proposes and advocates the "internal approach" to the ethics of technology, which is one where philosophers and philosophic reflection accompany technological design and making.

The theory of technological mediation pictures technologies as playing a mediating role in the relations between humans and the world. This mediating role has two dimensions: perception and action. In perception, technologies help to shape how reality can be present to human beings; in action, technologies help to shape how humans are present in reality. Verbeek here is synthesizing Don Ihde's Postphenomenology, which focuses on perception, and Bruno Latour's Actor-Network Theory, which focuses on action. This synthesis amounts to a comprehensive postphenomenological vocabulary.

Verbeek also expands and deepens Ihde's four forms of the human-world relation (embodiment, hermeneutic, alterity, and background). He adds two new forms: cyborg relation and composite relation. Cyborg relations obtain when "technologies actually *merge* with the human body instead of merely being embodied" (p. 144). This is a variant of embodiment relations that usually pertains to human enhancement technologies. For example, if a microchip is implanted in a visually impaired person, he or she is actually an amalgam of human and technology, half-organic and half-technological. Unlike other embodiment relations, the distinction between human and technology is no longer possible in cyborg relations.

Composite relations involve a double intentionality, "one of the technology toward 'its' world, and one of human beings toward the result of this technological intentionality" (p. 146). This is a variant of hermeneutic relations where technology has its own independent intention that is equal in status to human intentions. Technologies in the hermeneutic relation also have their own "intentionalities," for example, "thermometers focus on temperature, spectrographs on light frequencies, sonograms on how material objects reflect ultrasound" (p. 145). Composite intentionality combines such technical "directedness" or "purposiveness" with human intentionality. One example Verbeek gives is how looking at images constructed by radio telescopes amounts to "perceiving how the technology 'perceives' and makes visible this star" (p. 146).

With these two new forms of human-world relation, there are now three forms of intentionality: mediated intentionality (Ihde's first three forms of the human-world relation), hybrid intentionality (cyborg relation) and composite intentionality (composite relation), and each has its own moral implications. Verbeek's emphasis is primarily on mediated intentionality and its moral implications, but he does devote chapter 7 to hybrid and composite intentionality.

Verbeek discusses the theoretical aspect of mediated intentionality in terms of its implications for general ethics and ethics of technology. On a general level, mediation challenges the predominant framework of modern ethics, in which subject and object are radically separated. Modern theory reserves ethics for subjects (humans) based on objects' lack of consciousness, freedom, and intentionality. However, as the theory of technological mediation illustrates, moral decisions are co-shaped by technological things and human subjects. So, it is high time to "develop an ethical framework to conceptualize this moral relevance of technology" (p. 2). To accomplish this, Verbeek transforms humanist ethics into a non-humanist ethics, in which the boundaries between humans and technology are blurred and the formerly autonomous moral subject is replaced by the technologically mediated subject-object.

As for the ethics of technology, mediation requires a paradigm shift. Verbeek's "internal approach" transforms the ethics of technology "from an externally oriented form of technology assessment into a form of technology accompaniment" (p. 20). This means we should "not stare obsessively at the issue of whether a given technology is morally acceptable" (as the externalists did before), but focus instead on "shaping our own mediated subjectivity by developing responsible forms of technical design and use" (pp. 156-157). This represents a "third turn" in the philosophy of technology, one that integrates contextual description of "the empirical turn" and the normative assessment of "the ethical turn."

For the practical aspects of mediation theory, Verbeek emphasizes active involvement and thus shifts focus from the "context of use" to the "context of design." He proposes several methods and strategies to anticipate, assess, and design the morality of technologies. These include educating the designer's moral imagination; augmenting constructive technology assessment, scenarios and simulations; augmenting stakeholder analysis; and "inscription and value-sensitive design" methods. Ethics asks and tries to answer the question: "how should we live?" Designers are always "doing" ethics, because they provide a "material answer" to this question. The basic idea is to make this "doing" more reflective.

But if the designer becomes the leading character in “doing” ethics, then what can ethicists and philosophers do? What is their new role? Verbeek does not give us a clear answer. He only suggests that “Accompanying technological developments requires engagement with designers and users, identifying points of application for moral reflection and anticipating the social impact of technologies-in-design” (p. 164).

Verbeek’s general suggestion here has been fleshed out in greater detail by Robert Frodeman and colleagues at the University of North Texas. Frodeman has coined the term “field philosophy” to denote an active role for philosophers “working outside the library or study, doing philosophy at the project level” (Briggie, A and Frodeman, R. 2011). “Applied” philosophers discuss real-world problems, but only with their disciplinary colleagues in the pages of specialized journals. By contrast, “field” philosophers interact and co-produce knowledge with scientists, engineers, policymakers, and other non-philosophers. Their efforts culminate in outcomes, such as more just or sustainable technical designs, that may be quite different from the traditional peer-reviewed scholarly article. Verbeek’s notion of doing ethics seems like a call for field philosophy. Interactions between his approach and “field philosophy” would likely bear much fruit.

It is also fruitful to read Verbeek’s work in the context of two recent books from different fields that also seek to locate ethics in the built world. The first is *Nudge* (Yale University Press, 2008) by the economist and behavioral scientist Richard Thaler and the legal scholar Cass Sunstein. The second is *Persuasive Technology* (Morgan Kaufmann Publishers, 2003) by the IT engineer and psychologist B.J. Fogg.

All three books analyze the place of ethics in the material world, but they do so on different levels. At the macro-scale, Thaler and Sunstein describe a “nudge” as “any aspect of the choice architecture that alters people’s behavior in a predictable way” (Thaler and Sunstein 2008, p. 6). This includes more than technology. For example, the way food is displayed in the cafeteria will nudge diners one way or the other. To deliberately carry out a nudge is to set up a situation in the way that leads people to make better decisions, but does not force them to do so. This is why some call the idea “libertarian paternalism”. But of course “there is no such thing as a ‘neutral’ design” (Thaler and Sunstein 2008, p. 3), so any kind of design is morally charged.

Verbeek’s work sits in the middle at the meso-scale with its focus on technology, which is just one kind of “choice architecture.” Fogg’s *Persuasive Technology* operates at the micro-scale with its focus on a specific technology, namely, computers and information technology and how they can be used to “change what we think and do.” Fogg sets out to achieve a target behavior at the technical level by using persuasion psychology and behavior theory (more specifically, “FBM,” Fogg Behavior Model).

Verbeek’s book is deftly constructed and full of insights. It is a must read for those wanting to stay abreast of the newest thinking in the ethics of technology. Like all good books it challenges the reader to re-think categories – in this case, we are called on to consider that, in a technological age, we should moralize not only human beings but also our material environment. Verbeek establishes a solid philosophical foundation and maps out a pragmatic path for moralizing technology. But his unique gift, as the ever-smiling social critic, is to make this project sound less like a methodical act of rationalization and more like an opening into new dimensions of human creativity and flourishing.

References

- Achterhuis, H. 1995. De moralisering van de apparaten. *Socialisme en Democratie* 52 (1): 3-12.
- Briggie, A. & Frodeman, R. 2011. A New Philosophy for the 21st Century. *The Chronicle of Higher Education*. The Chronicle Review. Dec 11, 2011
- Fogg, B.J. 2003. *Persuasive Technology: Using Computers to Change What We Think and Do*. San Francisco: Morgan Kaufmann Publishers.
- Feenberg, A. 2009. Peter-Paul Verbeek: Review of What Things Do. *Human Studies* 32(2):225–228.

- Marx, K. 1845. Thesis on Feuerbach. In *Marx/Engels Selected Works*, Volume One, Moscow: Progress Publishers, 13–15.
- Thaler, R. and Sunstein, C. 2008. *Nudge: Improving Decisions About Health, Wealth, and Happiness*. New Haven & London: Yale University Press.