

A Historically Grounded, Robust Anthology

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Robert C. Scharff and Val Dusek, eds. 2003. *Philosophy of Technology: The Technological Condition—An Anthology*. Oxford: Blackwell Publishing.

From Rousseau's reply to enlightenment optimism regarding the arts and sciences, to Donna Haraway's manifesto on the benefits of cyborg politics, this anthology represents a panoramic view of the philosophy of technology. It consists of fifty-five selections that range from the historical to the progressive. The inspiration to build an all-embracing anthology arose out of, "the editors' experience as teachers of the philosophy of technology" (p. ix). Consequently, *Philosophy of Technology* is fit to serve as a primary text for a graduate seminar or an undergraduate course.

This anthology also makes an important contribution to the philosophy of technology itself. Robert Scharff and Val Dusek recognized that, "many of the current debates over technology [e.g. social constructivism vs. technological autonomy] rest upon oversimplified or outdated conceptions of science" (p.83). Such misconceptions are often perpetuated by using a 'problems-model' or 'issues-oriented' approach when framing a field of discourse. When an anthology lacks historical connectedness, it can have the unfortunate result of leading students to believe that, "philosophy mostly happens at the level of a 'debate' among a smorgasbord of competing sets of values that themselves are somehow simply found, or 'given' as logical or sociological options" (p. ix). To reduce the risk of such a liability, the anthology is organized topically and contains two areas found deficient in previous collections: 1) historical material from classical sources, 2) positivist and postpositivist conceptions of science and technology.

Philosophy of Technology is divided into six main parts. Part one, "The Historical Background," illuminates how craft-knowledge ('techné') was relegated to the status of lower understanding. Through Plato and Aristotle it becomes evident why 'technology' has been a 'late bloomer' as an area of specialization within philosophy. Then, through Bacon, Kant, Comte, Rousseau and Marx the reader is catapulted into the modern technological trajectory—an arc of development encompassed by the ideals of progress, efficiency, domination and rationality. The second division, "Philosophy, Modern Science, and Technology," highlights the influence of logical positivism upon value-

neutral conceptions of technology. The readings in part three, "Defining Technology," provide the reader with four distinct characterizations of technology: a sociotechnical system of manufacture and use (Stephen Kline), an artificial extension and enhancement of human nature (Arnold Gehlen), a socially constructed system of facts and artifacts (Trevor Pinch and Wiebe Bijker) and an autonomous force (Langdon Winner). Part four, "Heidegger on Technology," begins with a reprint of Heidegger's *The Question Concerning Technology* before moving into commentary surrounding his perspective by Robert Scharff, Don Ihde, Albert Borgmann, Hubert Dreyfus and Andrew Feenberg. Part five, "Technology and Human Ends," contains three sub-sections or points of contention within philosophy of technology: *Human Beings as 'Makers' or 'Tool Users'*, *Is Technology Autonomous*, and *Technology, Ecology and the Conquest of Nature*. The final section in the anthology, "Technology as Social Practice," explores three crucial questions: what are the various permutations of the humanity-technology relationship, how does cyberspace alter our notions of self and reality and is technology coextensive with democracy?

Per the editors' indication, "We therefore welcome all criticisms and suggestions about possible sins of omission as well as commission" (p. xi), I will sketch a few suggestions.

The third section in the anthology is the shortest and weakest. It clumsily transitions from two narrow attempts at defining technology into constructivist and autonomist characterizations of technology. Lacking a rich survey of the logic and breadth of frameworks used to define technology, unlike analysis found in Ferré (1988) and Mitcham (1994), the reader is left, contrary to the editors' objections, "silent both about what counts as 'technology' in the first place and about the crucial question of the relation between technology and science" (p.83). To remedy this shortcoming, the constructivist and autonomist material in part three could be placed in a new section devoted entirely to these characterizations. Then this new section could be strengthened by adding the part five subsection, *Is Technology Autonomous*, and balanced by adding more readings from the literature on the social construction of technology. These moves would leave section three wide-open to receive high-quality writings on technology's etymology and the various ways technology has been defined and delineated.

Other important formulations of technology and science are missing from the anthology. One glaring exclusion from the section on philosophy of science is Thomas Kuhn. Similar to covering evolutionary theory by including Lamarck but

not Darwin, as a substitute for Kuhn readers find Stephen Toulmin, who was a forerunner of the 'paradigm' notion; but it was Kuhn who popularized the term and illuminated its core components of, "symbolic generalizations, models of the underlying ontology of the field under investigation, concrete problem solutions, and the values governing theory appraisal" (McMullin 1993). This error of omission is pertinent because Albert Borgmann's *Focal Things and Practices* and Bill Devall's *The Deep Ecology Movement* directly rely on the 'paradigm' concept. Other notable omissions include Marshall McLuhan, Samuel Florman, Norbert Wiener, Friedrich Rapp, Harry Collins, Ivan Illich and Karl Popper.

Lying parallel to the need for insertion is the need for deletion. To tighten-up and strengthen this collection I recommend removing Bruno Latour's sensationalized *News from the Trenches of Science Wars*, Stephen Kline's question without a sufficient answer *What is Technology?*, E.F. Schumacher's categorically misappropriated *Buddhist Economics*, Jürgen Habermas' digressive *Technical Progress and the Social Life-World* and Andrew Ross' philosophically butchered *Hacking Away at the Counterculture*.

Despite potential for improvement, this anthology possesses several strengths. For one, it widens the scope of the philosophy of technology. Regarding areas of specialization (AOSs), intramural inward-looking can cause cogent contributions to a field to slip by unnoticed. This collection avoids that restrictive tendency by including selections from philosophers of science, historians of economics, environmental ethicists and feminists. Regarding the last tradition, through Nancy Tuana, Sandra Harding, Carolyn Merchant and Donna Haraway readers witness the counter-balancing effects of feminist critique on a domain steeped in masculine metaphors and biases. In addition, the editors' summaries of the readings are very accurate and concise. Commendable commissions include Rudolf Carnap, Mario Bunge, Jacques Ellul, Lewis Mumford, Hannah Arendt, Robert Heilbroner, Herbert Marcuse, Michael Heim and Emmanuel Mesthene.

In summary, this collection provides a blueprint for a new level of maturity within philosophy of technology. Synthesizing influential writings in a manner that emphasizes historical-connectedness will enable philosophers to make good on Langdon Winner's claim that, "As studies in philosophy and technology mature...it will be increasingly important for us to think critically about the origins and relative quality of the knowledge we draw upon as we address the key questions" (p. 234). Tracing the origins of concepts and values, ferreting out inherited deficiencies and drawing on diverse range of perspectives will further

the effort this anthology championed: robust philosophy of technology not limited to a 'problems-model' approach.

References

Ferre, F. (1988). *Philosophy of Technology*. Englewood Cliffs, NJ: Prentice Hall.

McMullin, E. (1993). "Rationality and Paradigm Change in Science". In *World Changes: Thomas Kuhn and the Nature of Science*. Cambridge, MA: The MIT Press.

Mitcham, C. (1994). *Thinking Through Technology: The Path between Engineering and Philosophy*. Chicago: University of Chicago Press.