

## Workshop Report

# Rethinking Technology

*A National Endowment for the Humanities Summer Institute  
5-9 July 1994, Pennsylvania State University, USA*

**Leonard Waks and Carl Mitcham**

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"Rethinking Technology: Philosophical Reflections on Technology since World War II", a summer Institute for college and university faculty, was held from 5-9 July, 1994. Sponsored by the Philosophy Department and the Science, Technology and Society Program of Pennsylvania State University with funding from the National Endowment for the Humanities, this was one of three NEH Institutes in 1994 focusing on the humanities and technology, indicating expanded interest in such studies on the parts of the Endowment and the academic community.

The Institute met at Penn State's University Park and Mount Alto campuses and in Washington D.C., and was co-directed by Carl Mitcham (Penn State) and Leonard Waks (Temple University and Penn State).<sup>1</sup> Paul Durbin (University of Delaware) served as advisor to, and evaluator of, the Institute and made the opening presentation. To help speakers engage participants on personal terms, several guest lecturers were invited to introduce the key concerns and themes of their work through "intellectual autobiographies." Each spoke briefly about how his or her life and philosophical preoccupations led to reflections on technology, then presented a particular issue or project in the philosophy of technology. Most guest faculty also gave one formal public lecture with commentary by one or more Institute participants.

### CONTENT OF THE INSTITUTE

The Institute was divided into three primary units. Firstly, Durbin, Mitcham and Waks surveyed the origins of the field and its central issues. Mitcham, then, provided an overview of its literature, organized around the distinction in his new book, *Thinking through Technology* (University of Chicago Press, 1994), between engineering and humanities traditions in philosophy of technology. In the former, engineer-philosophers seek to explicate and extend the idea of technology from the technical into all realms of human experience for the benefit of society and culture. In the latter, humanities-philosophers seek to define and delimit technology out of a concern that the expansion of technology can in many instances undermine human social and cultural experience. Kocklemans offered a deeper appreciation of the humanities tradition through a close reading of Heidegger's essay on the question of technology.

The second unit emphasized problems in the ethics of technology and in technology assessment. Johnson surveyed computer ethics, while Dretske considered the relationship between computers and human intelligence. Mitcham, along with participants David Strong (Rocky Mountain College) and Barbara Allen (University of Southwestern Louisiana), laid out the main lines of thought in environmental ethics. Participant John Lizza (Kutztown University) provided an introduction to biomedical ethics in preparation

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for explorations by Reich and Veatch at Georgetown. Ginsberg spoke on the ethical issues raised by weapons of mass destruction and the role of philosophers in mitigating their danger. He also shared insights about academic publication, based on his experiences as editor of a scholarly journal and a book series.

Participants Patrick Hamlett (North Carolina State University), Jesse Tatum (Michigan Tech) and Marvin Croy (University of North Carolina at Charlotte) gave presentations on technology assessment. These were followed by a visit to the Congressional Office of Technology Assessment and a presentation by Coats, assisted by Linda Garcia and Todd Laporte, emphasizing current and emerging projects and issues in TA (Technology Assessment). While in Washington, the group also visited with Rachelle Hollander at the program on Studies in Science, Technology and Society at the National Science Foundation, who spoke about funding opportunities for teaching and research in STS and philosophy of technology.

The third unit of the Institute consisted of presentations of four of the most important and wide-ranging research programs now underway in philosophy of technology. Winner spoke about the ethics and politics of design, seeking to understand the places within the design process open to democratic intervention. Shrader-Frechette examined the role of philosophy in the environmental policy area: in enunciating ethical principles, critiquing policy formulations and even reconstructing research programs in environmental sciences. Borgmann argued that "focal things and practices" provide connecting points to underlying reality in a world dominated by "postmodern" media meta-realities. Ihde emphasized the experiential richness afforded by the technological world when viewed in the perspective of a phenomenology recognizing multiple stable patterns of reality (multiple "realities").

The Institute closed with general reassessments of issues in philosophy and technology studies by Mitcham and Waks and two panel presentations by Institute participants. One was on feminist perspectives by Ann Larabee (Michigan State University), Barbara Allen (University of Southwestern Louisiana), Achim Köddermann (SUNY Oneonta) and Sonia Cabanillas (Universidad Metropolitana Puerto Rico). The other concentrated on interdisciplinarity with contributions by Phil Mullins (Missouri Western State College), Pieter Tijmes (Twente University, The Netherlands), Michael Jones (Western Carolina University), Beverly Kent (Lakehead University, Canada) and Guillermo Equiazu (Universidad de Rosario, Argentina). In conclusion, Cutcliffe, as guest lecturer, provided an overview of STS as one larger context within which philosophy and technology studies can find a home.

#### EMERGENT THEMES

Each participant brought different concerns which filtered the experience of the interdisciplinary Humanities Institute. The following five themes, however, permeated discussions:

- **Technical action.** Technical action may be defined as the application of science-based causal laws to maximize the achievement of desired effects. The promise of science to control nature for human ends is a main theme in philosophy from Francis Bacon to John Stuart Mill, while the ethical problems engendered by the power unleashed through modern science is a key issue for such contemporary philosophers of technology as Hans Jonas. The critique of technical action was identified as one important theme permeating philosophy of technology in the humanities tradition.
- **Practical and public philosophy of technology.** The autobiographical accounts of the speakers indicated clearly that philosophy of technology as an academic field in the United States arose from the cultural crisis of the 1960s, and included the appropriation of technology criticism from intellectuals on the academic margins such as Lewis Mumford, Ivan Illich and Paul Goodman. Inherent in the field, then, is

the desire to revitalize philosophy as a potent cultural force, capable of affecting public discussion of technology. Lecturers presented various ideas about how philosophy might serve as a public, practical activity.

- **Technology and democracy.** A central public policy question was whether information technologies facilitate broad-based technological literacy, informed discussion and participation, or merely embed masses of people in passive consumption and engagement with a media meta-reality from which there can be no escape. Another was what role ordinary citizens should play in the design of artifacts which affect everyday life and in the technology assessment activities of government agencies.
- **Philosophical and vernacular wisdom.** Does the philosophical tradition provide a privileged position from which to speak, or is it arrogant and elitist to analyze the technological order with authority drawn from one's role in the contemporary (technologically-dominated) university? The group explored the relationship of the philosopher's role to various other voices in society - especially the "silenced" voices of technical workers, women, ethnic minorities and indigenous peoples. Mass media and popular culture constituted another challenge to philosophical judgment.
- **Technology and traditional values.** In what ways do technological changes affect traditional values and inherited ways of doing things? One issue is whether useful and enjoyable traditional ways can withstand competition from new, more efficient means. Is it possible to walk to a store when a car is available, even when the walk is pleasant and good for you while driving pollutes and traffic causes stress? If isolated groups such as the Amish can withstand technical efficiency, is there anything we can learn from them? Is it possible that television and computer communications undermine reliance on self and local community, rendering guidelines for behavior taken from the past (e.g. thrift, cooperation) irrelevant.

Because of the dynamic character of philosophy and technology studies, especially when placed within the STS context and with the creative involvement of this particular cohort of participants, the Institute stimulated new thinking in these five and related directions. Such thinking can be expected to inform not only future teaching by the participants but future scholarship as well.

#### NOTES

- 1 The Institute hosted 24 participant scholars from the United States (including two from Puerto Rico). Another six participants from Argentina, Canada, Denmark and the Netherlands secured independent funding to participate. A majority of the participants had academic appointments in philosophy departments or represented philosophy faculty in more general departments (such as a humanities department at a technological university). And while most had some previous teaching and research interests in the applied ethics of technology and STS (Science, Technology and Society), a surprising number were already teaching or preparing to teach courses devoted specifically to philosophy of technology, suggesting that this sub-discipline is approaching normal status in academia. But as would be appropriate in an Institute with an STS flavor, the disciplines of art, comparative literature, English, engineering, history, political science and sociology were also well represented.

Guest lecturers from Penn State included Robert Ginsberg (Philosophy), Ivan Illich (STS), Joseph Kocklemans (Philosophy) and Robert Proctor (History). Visiting faculty lecturers were Fred Dretske (Philosophy, Stanford University), Deborah Johnson and Langdon Winner (STS, Rensselaer Polytechnic Institute), Warren Reich and Robert Veatch (Kennedy Center for Bioethics, Georgetown University), Vary Coats (Congressional Office of Technology Assessment), Kristin Shrader-Frechette (Philosophy, University of South Florida), Albert Borgmann (Philosophy, University of Montana), Don Ihde (Philosophy SUNY Stony Brook), Stephen Cutcliffe (Lehigh University) and Paul Durbin (Philosophy, University of Delaware).

Co-organizers were Carl Mitcham, Director of Penn State's STS Program and Hennebach Visiting Professor of Humanities, Colorado School of Mines, Golden CO (Spring 1995) and Leonard Waks, Temple University, Philadelphia College of Education and Penn State.