

technologically oriented, not socially oriented. I believe we have a great opportunity here; for, as I hope I have persuaded you, many of our seemingly social problems do admit of partial technological solutions. Our already deployed technological apparatus can contribute to the resolution of social questions. I plead, therefore, first for our government to deploy its laboratories, its hardware contractors, and its engineering universities around social problems. And I plead, secondly, for understanding and cooperation between technologist and social engineer. Even with all the help he can get from the technologist, the social engineer's problems are never really solved. It is only by cooperation between technologist and social engineer that we can hope to achieve what is the aim of all technologists and social engineers — a better society and, thereby, a better life, for all of us who are part of society.

4. Why I Am Not Going to Buy a Computer

WENDELL BERRY

Wendell Berry may be the antithesis of the "technological fixer" Alvin Weinberg describes in the preceding chapter. His short essay — concise and spare — explains why he prefers a thirty-year-old manual typewriter to a personal computer or even an electric typewriter. The essay, originally published in New England Review and Bread Loaf Quarterly, was reprinted in Harper's and is followed by several letters to the editor that Harper's received, together with Berry's response. It is a simple, elegant indictment of centralization, bigness, and consumption-driven technological society that some will resonate with and others will utterly reject.

A writer and farmer, Wendell Berry lives in Port Royal, Kentucky, and is a former member of the English faculty at the University of Kentucky. "Why I Am Not Going to Buy a Computer" is included in a book of his essays entitled, What Are People For? Berry's other writings include several novels and collections of short stories, poems, and essays.

Like almost everybody else, I am hooked to the energy corporations which I do not admire. I hope to become less hooked to them. In my work, I try to be as little hooked to them as possible. As a farmer, I do almost all of my work with horses.

As a writer, I work with a pencil or a pen and a piece of paper.

My wife types my work on a Royal standard typewriter bought new in 1956 and as good now as it was then. As she types, she sees things that are wrong and marks them with small checks in the margins. She is my best critic because she is the one most familiar with my habitual errors and weaknesses. She also understands, sometimes better than I do, what ought to be said. We have, I think, a literary cottage industry that works well and pleasantly. I do not see anything wrong with it.

A number of people, by now, have told me that I could greatly improve things by buying a computer. My answer is that I am not going to do it. I have several reasons, and they are good ones.

The first is the one I mentioned at the beginning. I would hate to think that my work as a writer could not be done without a direct dependence on strip-mined coal. How could I write conscientiously against the rape of nature if I were, in the act of writing, implicated in the rape? For the same reason, it matters to me that my writing is done in the daytime, without electric light.

I do not admire the computer manufacturers a great deal more than I admire the energy industries. I have seen their advertisements, attempting to seduce struggling or failing farmers into the belief that they can solve their problems by

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buying yet another piece of expensive equipment. I am familiar with their propaganda campaigns that have put computers into public schools in need of books. That computers are expected to become as common as TV sets in "the future" does not impress me or matter to me. I do not own a TV set. I do not see that computers are bringing us one step nearer to anything that does matter to me: peace, economic justice, ecological health, political honesty, family and community stability, good work.

What would a computer cost me? More money, for one thing, than I can afford, and more than I wish to pay to people whom I do not admire. But the cost would not be just monetary. It is well understood that technological innovation always requires the discarding of the "old model" — the "old model" in this case being not just our old Royal standard, but my wife, my critic, my closest reader, my fellow worker. Thus (and I think this is typical of present-day technological innovation), what would be superseded would be not only something, but somebody. In order to be technologically up to date as a writer, I would have to sacrifice an association that I am dependent upon and that I treasure.

My final and perhaps my best reason for not owning a computer is that I do not wish to fool myself. I disbelieve, and therefore strongly resent, the assertion that I or anybody else could write better or more easily with a computer than with a pencil. I do not see why I should not be as scientific about this as the next fellow: When somebody has used a computer to write work that is demonstrably better than Dante's, and when this better is demonstrably attributable to the use of a computer, then I will speak of computers with a more respectful tone of voice, though I still will not buy one.

To make myself as plain as I can, I should give my standards for technological innovation in my own work. They are as follows:

1. The new tool should be cheaper than the one it replaces.
2. It should be at least as small in scale as the one it replaces.
3. It should do work that is clearly and demonstrably better than the one it replaces.
4. It should use less energy than the one it replaces.
5. If possible, it should use some form of solar energy, such as that of the body.
6. It should be repairable by a person of ordinary intelligence, provided that he or she has the necessary tools.
7. It should be purchasable and repairable as near to home as possible.
8. It should come from a small, privately owned shop or store that will take it back for maintenance and repair.
9. It should not replace or disrupt anything good that already exists, and this includes family and community relationships.

1987

After the foregoing essay, first published in the *New England Review* and *Bread Loaf Quarterly*, was reprinted in *Harper's*, the *Harper's* editors published the following letters in response and permitted me a reply.

W. B.

LETTERS

Wendell Berry provides writers enslaved by the computer with a handy alternative: Wife — a low-tech, energy-saving device. Drop a pile of handwritten notes on Wife and you get back a finished manuscript, edited while it was typed. What computer can do that? Wife meets all of Berry's uncompromising standards for technological innovation: She's cheap, repairable near home, and good for the family structure. Best of all, Wife is politically correct because she breaks a writer's "direct dependence on strip-mined coal."

History teaches us that Wife can also be used to beat rugs and wash clothes by hand, thus eliminating the need for the vacuum cleaner and washing machine, two more nasty machines that threaten the act of writing.

Gordon Inkeles
Miranda, Calif.

I have no quarrel with Berry because he prefers to write with pencil and paper; that is his choice. But he implies that I and others are somehow impure because we choose to write on a computer. I do not admire the energy corporations, either. Their shortcoming is not that they produce electricity but how they go about it. They are poorly managed because they are blind to long-term consequences. To solve this problem, wouldn't it make more sense to correct the precise error they are making rather than simply ignore their product? I would be happy to join Berry in a protest against strip mining, but I intend to keep plugging this computer into the wall with a clear conscience.

James Rhoads
Battle Creek, Mich.

I enjoyed reading Berry's declaration of intent never to buy a personal computer in the same way that I enjoy reading about the belief systems of unfamiliar tribal cultures. I tried to imagine a tool that would meet Berry's criteria for superiority to his old manual typewriter. The clear winner is the quill pen. It is cheaper, smaller, more energy efficient, human powered, easily repaired, and nondisruptive of existing relationships.

Berry also requires that this tool must be "clearly and demonstrably better" than the one it replaces. But surely we all recognize by now that "better" is in the mind of the beholder. To the quill-pen aficionado, the benefits obtained from elegant calligraphy might well outweigh all others.

I have no particular desire to see Berry use a word processor; if he doesn't like computers, that's fine with me. However, I do object to his portrayal of this reluctance as a moral virtue. Many of us have found that computers can be an invaluable tool in the fight to protect our environment. In addition to helping me write, my personal computer gives me access to up-to-the-minute reports on the workings of the EPA and the nuclear industry. I participate in electronic bulletins boards on which environmental activists discuss strategy and warn each other about urgent legislative issues. Perhaps Berry feels that the Sierra Club should

eschew modern printing technology, which is highly wasteful of energy, in favor of having its members hand-copy the club's magazines and other mailings each month?

Nathaniel S. Borenstein
Pittsburgh, Pa.

The value of a computer to a writer is that it is a tool not for generating ideas but for typing and editing words. It is cheaper than a secretary (or a wife!) and arguably more fuel efficient. And it enables spouses who are not inclined to provide free labor more time to concentrate on their own work.

We should support alternatives both to coal-generated electricity and to IBM-style technocracy. But I am reluctant to entertain alternatives that presuppose the traditional subservience of one class to another. Let the PCs come and the wives and servants go seek more meaningful work.

Toby Koosman
Knoxville, Tenn.

Berry asks how he could write conscientiously against the rape of nature if in the act of writing on a computer he was implicated in the rape. I find it ironic that a writer who sees the underlying connectedness of things would allow his diatribe against computers to be published in a magazine that carries ads for the National Rural Electric Cooperative Association, Marlboro, Phillips Petroleum, McDonnell Douglas, and yes, even Smith Corona. If Berry rests comfortably at night, he must be using sleeping pills.

Bradley C. Johnson
Grand Forks, N.D.

WENDELL BERRY REPLIES

The foregoing letters surprised me with the intensity of the feelings they expressed. According to the writers' testimony, there is nothing wrong with their computers; they are utterly satisfied with them and all that they stand for. My correspondents are certain that I am wrong and that I am, moreover, on the losing side, a side already relegated to the dustbin of history. And yet they grow huffy and condescending over my tiny dissent. What are they so anxious about?

I can only conclude that I have scratched the skin of a technological fundamentalism that, like other fundamentalisms, wishes to monopolize a whole society and, therefore, cannot tolerate the smallest difference of opinion. At the slightest hint of a threat to their complacency, they repeat, like a chorus of toads, the notes sounded by their leaders in industry. The past was gloomy, drudgery ridden, servile, meaningless, and slow. The present, thanks only to purchasable products, is meaningful, bright, lively, centralized, and fast. The future, thanks only to more purchasable products, is going to be even better. Thus, consumers become salesmen, and the world is made safer for corporations.

I am also surprised by the meanness with which two of these writers refer to my wife. In order to imply that I am a tyrant, they suggest by both direct statement and innuendo that she is subservient, characterless, and stupid—a mere “device” easily forced to provide meaningless “free labor.” I understand that it is impossible to make an adequate public defense of one’s private life, and so I will only point out that there are a number of kinder possibilities that my critics have disclaimed to imagine: that my wife may do this work because she wants to and likes to, that she may find some use and some meaning in it, that she may not work for nothing. These gentlemen obviously think themselves feminists of the most correct and principled sort, and yet they do not hesitate to stereotype and insult, on the basis of one fact, a woman they do not know. They are audacious and irresponsible gossips.

In his letter, Bradley C. Johnson rushes past the possibility of sense in what I said in my essay by implying that I am or ought to be a fanatic. That I am a person of this century and implicated in many practices that I regret is fully acknowledged at the beginning of my essay. I did not say that I proposed to end forthwith all my involvement in harmful technology, for I do not know how to do that. I said merely that I want to limit such involvement and to a certain extent I do know how to do that. If some technology does damage to the world—as two of [these] letters seem to agree that it does—then why is it not reasonable, and indeed moral, to try to limit one’s use of that technology? Of course, I think that I am right to do this.

I would not think so, obviously, if I agreed with Nathaniel S. Borenstein that “better” is in the mind of the beholder.” But if he truly believes this, I do not see why he bothers with his personal computer’s “up-to-the-minute reports on the workings of the EPA and the nuclear industry” or why he wishes to be warned about “urgent legislative issues.” According to his system, the “better” in a bureaucratic, industrial, or legislative mind is as good as the “better” in his. His mind apparently is being subverted by an objective standard of some sort, and he had better look out.

Borenstein does not say what he does after his computer has drummed him awake. I assume from his letter that he must send donations to conservation organizations and letters to officials. Like James Rhoads, at any rate, he has a clear conscience. But this is what is wrong with the conservation movement. It has a clear conscience. The guilty are always other people, and the wrong is always somewhere else; that is why Borenstein finds his “electronic bulletin board” so handy. To the conservation movement, it is only production that causes environmental degradation; the consumption that supports the production is rarely acknowledged to be at fault. The ideal of the run-of-the-mill conservationist is to impose restraints upon production without limiting consumption or burdening the consciences of consumers.

But virtually all of our consumption now is extravagant, and virtually all of it consumes the world. It is not beside the point that most electrical power comes from strip-mined coal. The history of the exploitation of the Appalachian coal fields is long, and it is available to readers. I do not see how anyone can read it

and plug in any appliance with a clear conscience. If Rhoads can do so, that does not mean that his conscience is clear; it means that his conscience is not working.

To the extent that we consume, in our present circumstances, we are guilty. To the extent that we guilty consumers are conservationists, we are absurd. But what can we do? Must we go on writing letters to politicians and donating to conservation organizations until the majority of our fellow citizens agree with us? Or can we do something directly to solve our share of the problem?

I am a conservationist. I believe wholeheartedly in putting pressure on the politicians and in maintaining the conservation organizations. But I wrote my little essay partly in distrust of centralization. I don't think that the government and the conservation organizations alone will ever make us a conserving society. Why do I need a centralized computer system to alert me to environmental crises? That I live every hour of every day in an environmental crisis I know from all my senses. Why then is not my first duty to reduce, so far as I can, my own consumption?

Finally, it seems to me that none of my correspondents recognizes the innovativeness of my essay. If the use of a computer is a new idea, then a newer idea is not to use one.

5. Technology and the Tragic View

SAMUEL C. FLORMAN

In Part II, which follows this chapter, two writers of an earlier generation engage in a famous debate that, in many ways, epitomizes the bitter divisions between the advocates and critics of technology in the late 1960s and early 1970s. Though no longer tied to the domestic conflict over U.S. participation in the Vietnam War or to the social revolution that was then raging in the United States, these pro- and anti-technology divisions still exist today. However, to treat a subject as complex as the relations of technology and society in such simplistic, for-or-against terms is ultimately less than satisfying. Samuel Florman's insightful essay, "Technology and the Tragic View," taken from his book, *Blaming Technology*, suggests another approach. Florman draws on the classical Greek concept of tragedy to develop a new perspective on technology. In the tragic view of life, says Florman,

[it] is man's destiny to die, to be defeated by the forces of the universe. But in challenging his destiny, in being brave, determined, ambitious, resourceful, the tragic hero shows to what heights a human being can soar. This is an inspiration to the rest of us. After witnessing a tragedy we feel good, because the magnificence of the human spirit has been demonstrated.

The tragic view accepts responsibility but does not seek to cast blame. It challenges us to do, with caution, what needs to be done, and to consider at the same time the consequences of not acting. Florman's view is ultimately an affirmation of the value of technology in human life, tempered by a recognition of its limits in sustaining human happiness. It is a uniquely constructive approach to thinking about technology and society and a fitting note on which to close the first section of this book. Samuel C. Florman, author of *The Existential Pleasures of Engineering*, is a practicing engineer and chairman of Kreiser Borg Florman Construction Company in Scarsdale, New York. His more than 100 articles dealing with the relationship of technology to general culture have appeared in professional journals and popular magazines. His new book, *The Aftermath: A Novel of Survival* (St. Martin's Press, 2001), is an adventure story set on Earth after a cataclysmic collision with a comet. Florman, born in New York City in 1925, is a fellow of the American Society of Civil Engineers and a member of the New York Academy of Sciences. He holds a bachelor's degree and a civil engineer's degree from Dartmouth College and an M.A. in English literature from Columbia University.

The blaming of technology starts with the making of myths — most importantly, the myth of the technological imperative and the myth of the technocratic elite.