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And the Clocks Are Striking One

It was a bright cold day in April, and the clocks were striking thirteen.

Thus, George Orwell begins his chilling classic *1984*. "Bright" but "cold," with a "vile wind" and "a swirl of gritty dust" whose presence Winston Smith could not escape no matter how swiftly he slipped "through the glass doors" into the building that contained his flat. An allusion to Big Brother? Very likely. And the clocks were striking an ominous thirteen.

The political winds blowing in the actual 1984 are not as vile as the totalitarian nightmare of Orwell's horror, especially in the "free world." Yet we dare not complacently dismiss the prophetic dangers and self-deluding "doublethink" of *1984* as having meaning only for the Communist bloc. The powerful warning, as Erich Fromm observed, "means us, too."

Fromm was worried about the possibility of a society of automatons who would lose "every trace of individuality, of love, of critical thought" without being aware of what was happening to them (because of doublethink). In *The Sane Society*, Fromm identifies the peril as "managerial industrialism, in which man builds machines which act like men and develops men who act like machines . . . appendices to the process of production and consumption."

One might expect the current enthusiasm for fifth-generation computers and expert systems, which is producing ambitious, well-funded efforts in several countries, to result in machines "which act like men." But progress will not be at a gallop, nor will it generate human automatons. The advances will mostly serve to shift the boundary between the things that biological creatures do themselves and the things that technology helps them do or does for them—just as the steam shovel and the automobile shifted that boundary (only now the shift will be in the domains of information processing and cognition rather than physical labor and transportation).

What then of the danger that people might come to behave like machines, as Fromm feared? That depends not on whether a particular activity gets mechanized but on changes taking place in the functions people continue to perform themselves, on the character of new functions they assume, and mostly on what people do in their relationships with one another. The role of society and the economy is in determining how the options and opportunities are used or not used, as well as misused and misplaced.

In the real 1984, we have reason to take heart. The progress in biochemistry, microelectronics, lasers, and satellites is not the creation of a population of politically repressed automatons. The human species has demonstrated individual ingenuity and initiative at the summit of technological accomplishment, a signal of vital energy, not a moribund system.

Microcomputers, to consider a suggestive example, can be intellectually challenging and fun to use as well as very productive. They are the offspring of creativity and potential contributors to even greater creativity—enhancers of thought and levers to unbounded versatility. This only begins to be reflected by their success in the marketplace. They are stimulators, not stiflers, of imagination and invention.

Society must choose wisely to realize the liberating, ennobling potential of the new technologies. Personal computers are entering homes and offices in the millions. Universities are making plans to provide them to students. Computer manufacturers and software firms with an eye to future uses and users are being extremely generous with educational discounts and gifts. The ground is being laid for what could be a milestone in individual achievement and human fulfillment—a virtual renaissance of the collective spirit. We should strive to make that the ultimate significance of 1984.

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