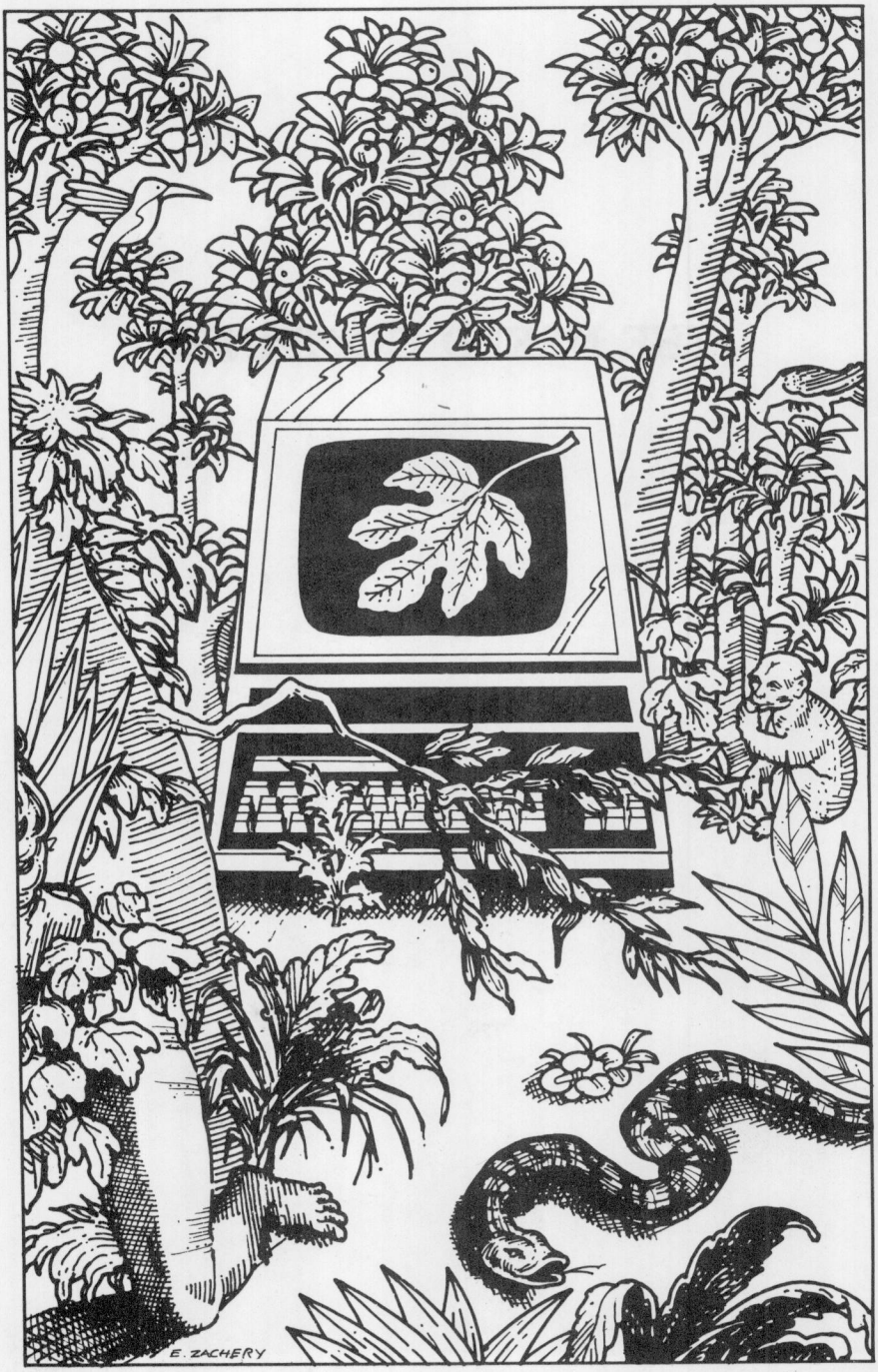
THE NAKED COMPUTER


E. ZACHERY

THE NAKED COMPUTER

A Layperson's Almanac of Computer Lore, Wizardry, Personalities, Memorabilia, World Records, Mind Blowers and Tomfoolery

Jack B. Rochester
and
John Gantz

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For Mary

You are the sweetest song I sing

and Joshua

Warrior-son and muse extraordinaire

J.B.R.

For Shelley

Whose empathy, culinary art, and untethered soul

make life worth living

And infant Jesse

Who can slobber on a computer with the best of them

J.G.

ACKNOWLEDGMENTS

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And our appreciation, in memoriam, to James Peacock, who would have loved this book and enhanced it with advice and information had he lived.

"Isn't it interesting that the industry is so dynamic, much more dynamic than I had predicted," Thomas J. Watson, Jr., former president and chief operating officer of IBM, told us in an exclusive interview. "The innovative changes seem more rapid than in any other industry, possibly anywhere."

So rapid, in fact, that many great events went undocumented and, today, live only by virtue of the oral story-telling tradition. We have striven to uphold the highest standards of journalistic integrity in researching and writing *The Naked Computer*. Our material is as accurate and authoritative as possible, but inevitably, differences of opinion will arise; our "first" is someone else's second, something or someone wasn't included in a list. We hope you'll take comfort in the knowledge that we've made every effort to be responsible in the arduous task of preparing this book.

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And most special thanks to the people of the computer industry, the poets and programmers, heroes sung and unsung, visionaries and videots, without whom this book would have been boring, difficult, unnecessary, or worse. You are part of mankind's cybernetic renaissance; we hope we have unfrocked your creation with humor, grace, and awe.

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INTRODUCTION

The Mating Call

You're in love. You just don't know it yet. The tail fins you were so enamored of in the 1950s have long since gone to ferrous oxide heaven, the psychedelic posters of the 1960s are decomposing with the bead curtains deep in the bowels of the condo storage area, the self-help books of the 1970s are lost in the bookshelf amid a clutter of video game cassettes.

There's a new musk in the wind. Silicon dust, mylar motes, and electron charges. It's the computer's spoor.

You can resist the lure, like Raymond Schoolfield, who stood naked in front of the IBM building in Atlanta on September 23, 1968, carrying a sign that said, "Computers Are Obscene." Or Harvey Matusow, who formed The International Society for the Abolition of Data Processing Machines in the same year.

But you might as well join the orgy, succumb to the pleasures of the information age.

After all, a computer has already changed your life—for example, that metal bank teller that ate your cash card last Saturday night, the overbooked airline flight that left you spending the night in Newark, the new no-goof-off digital time clock down at the factory, your last electrocardiogram reading, that IRS audit that discovered the medical deduction you took on your dog's distemper shot, the Pac-Man cassette you threw out the window when your kid flunked English.

In 1960, there were about five thousand computerlike "things" in the world. By 1985 there will be fifty million. One out of two white-collar workers will have an electronic "computer Friday," one out of fifty blue-collar workers will be a robot. The average home will have more computers than motors (currently forty) in it.

Big computers, small computers, egghead computers, working-class computers—they're coming out of the closet. Like little green space men, they're landing at the rate of a thousand a day before our very eyes. Now that they're in Times Square, we can't ignore them.

If five years ago we thought of the computer as a mysterious box filled

with multicolored wires, festooned with lights, and somehow out to get us, today we may *still* think of it as a mysterious box filled with multicolored wires and festooned with lights—but Jones down the street just bought one. And our kid is bugging us for one.

Forget the boring stuff—accounting, payroll, inventory—that computers were bred to do. Today doctors, artists, mechanics, mad scientists, firemen, hookers, bird watchers, and Mafia dons all use computers. Even computers use computers.

There's an advantage to all this. Now that computers are being booted out of their dust-free, glass-walled enclaves into the street, more of us get to see them in their birthday clothes—warts, birthmarks, flat feet, zits, and all.

If we want, we can even buy one—only $49.95, sold in drugstores—and fold, spindle, and mutilate it just for revenge.

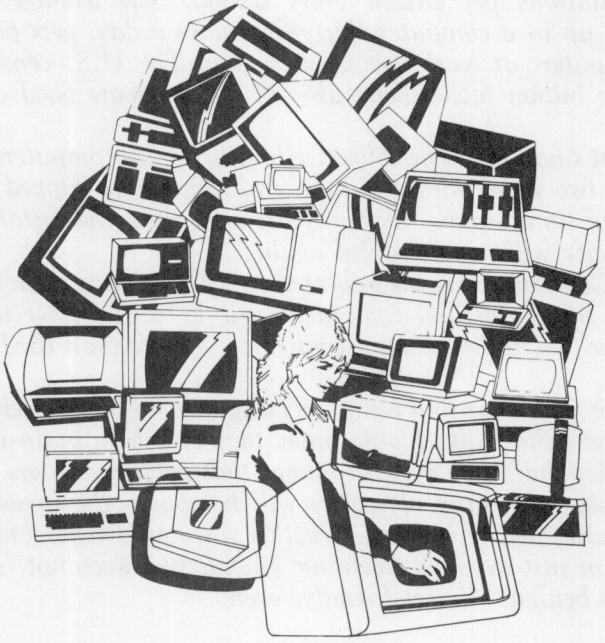
So relax. Computers can do all the dumb things we can do; they just do them a lot faster. They can be both boggle-minded and mind-boggling. Poke around the next twenty chapters and you'll see.

THE NAKED COMPUTER

CHAPTER 1

THE INVASION:

Computers by the Zillion



Picture ENIAC, the first computer. In 1946 it was the scientific marvel of the day, a thirty-ton triumph, standing two stories high and covering fifteen thousand square feet. A boxcar could fit inside it. Yet today, a $1,500 Radio Shack TRS-80 computer, smaller than a stereo, can add and subtract twenty times faster. Just the cost of the electricity to run ENIAC for a week could buy a couple of Radio Shack computers; an hour's worth could buy its computational equal in hand-held calculators.

The human equivalent of today's average computer is one million mathematicians working twenty-four hours a day doing sums, consuming a ton of scratch paper a second. The level of miniaturization in today's computer memory matches that of inscribing the Bible on the head of a pin.

Had automobile technology advanced at the rate of computer technology over the past thirty years, a Rolls-Royce would cost $2.50 and

would get two million miles to a gallon of gasoline.

Mind-boggling? No more than watches that play Space Invaders, electronic bartenders, cars that talk back, calculators that sing, smart bombs, computer-drawn cartoons, digital records, or intelligent carburetors.

Consider the following. Computers perform one hundred thousand calculations per citizen every second. The average citizen's name pops up in a computer thirty-five times a day, gets passed between computers at least five times a day. The U.S. census alone collects five billion facts about us—all of which are good computer fodder.

But that's nothing. The collective brainpower of computers shipped in the next two years will equal that of all computers shipped from the beginning of time to now. By two years after that, the installed computer capacity will have doubled again.

Apple Computer was incorporated in 1977. Tandy didn't ship its first Radio Shack TRS-80 computer until 1978. Together they have shipped over two million computers by now—more than IBM has ever shipped.

And this isn't counting computers disguised in other products: microwave ovens that talk, bionic limbs that twitch to brain-wave signals, missiles that have eyes, or games that gobble quarters.

No nook, no cranny of society will be spared the invasion. For better or worse, they're with us—whether you consider them milestones of progress or just so much electronic kudzu. But weep not. The little devils seem benign. Almost friendly, even.

When IBM did its first market forecast for computers in 1948 it decided not to invest in the business. The market was too small. By the end of 1983 there were thirteen million computers in use in the world. A total of $200 billion will have been spent buying them, and many more billions making them run. Between 1981 and 1982 the number of computers in the world doubled; between 1982 and 1983 they doubled again. In twelve months IBM shipped more of its personal computers than all the computers it had shipped up to 1983.

You think computers aren't "in"? Well, how much trendier can you get than to be the subject of a Jerry Rubin "Networking Salon"? That's right, Jerry Rubin, number one Yippie war protester of the 1960s. In 1968, he said, "My goal is at the age of thirty-five to act like I'm fifteen." Now