

THE AMBIVALENT MISERIES OF PERSONAL COMPUTING

Haste, Seduction, and Trivialization await computer users

by Art Kleiner illustrated by James Donnelly



THE most compelling argument *against* owning a personal computer is watching a friend who just bought one fall inevitably to the microcomputer version of *The Invasion of the Body-Snatchers*. By Tuesday, Monday's new computer owners are hunched over their machines with contorted faces and miserable expressions. But if you ask how they feel they snarl, "It's wonderful! I love it!" and turn immediately back to pounding the keys, shouting at the programs' slowness, cursing the manuals, and reassuring themselves that only a few silicon mysteries remain before they get it running the way they want.

That's the stereotype, anyway, and it's true enough to life that the miserable novice computer owner is entering American folklore as a character type — an update of James Thurber's henpecked husband of the thirties and forties who couldn't figure out how to fix a drain. But while I'm a quintessentially irritated computer novice myself (as anyone in the office can attest after hearing me rage at stalled programs or busted printers), I think frustration is just the first hurdle. Computers produce more subtle and ambivalently disturbing effects. During five years of using computers and two years of owning one, my mental habits have transmogrified. I notice three main effects. I work faster, but my time feels out of control. I play with new types of creative machines, but I have no clear sense of how to judge them. I work more effectively, but the leftover time is overwhelmed with mountains of inconsequential trivia about computers and the computer industry.



THE first effect: Computers encourage impatience because they work at a different pace than I do. They alternately race and pause. When they pause, we're their servants, waiting on the whim of the machine. Even the most highly-regarded com-

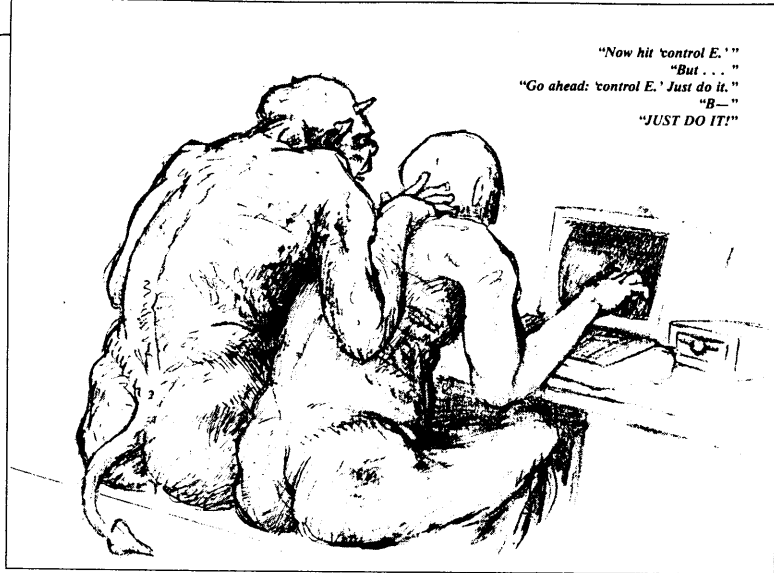
puters make you wait: the Macintosh stalls while it fills in its desktop imagery; when you turn on the IBM PC, it keeps you staring at a blank screen until it's checked through its memory. The pauses, even if they last only seconds, make everything else in my mind stop. I feel like I'm at a mental starting gate, poised to reenter a relay race, waiting impatiently with a blank mind for the signal so I can pick up where I left off.

Once it's started my computer's pace is faster than my pace. Five years ago I could hardly read computer network text as it flowed across the terminal at 30 characters per second (300 baud, a standard telecommunications speed). The next faster standard speed, 1200 baud (about 120 characters per second), made paragraphs flash up whole upon the screen — much too fast to read. But now I read incoming text at almost 1200 baud with complete comprehension. I suspect most experienced networkers read as quickly — if you don't you fall behind in the flood of text coming your way. Now when I read a book, I must consciously slow down my reading so my thoughts can catch up. Otherwise, I unconsciously want to skip anything that isn't instantly graspable.

As I bounce between pausing and rushing, my sense of time changes. Already contemplation takes more concentration than it used to. My

Art Kleiner's enthusiasm and easy agility on computers, without quite casting him as an actual hacker, have convinced me — as magazines and computers themselves couldn't — that these machines can be mastered. But when they snag or crash, Art's utter disgust and wrath at being suckered is ferocious. We all back away, in fear of that disillusionment.

—Kevin Kelly



mind wants either to be stimulated or to be numb. I can still think with deliberation, but when I've been computing steadily, I don't feel any reason to.



THE second effect: Computer software by nature is hard to judge effectively. The stuff is seductively interactive; it reacts with a responsiveness, reliability, and malleability that you don't encounter in the tools it replaces: calculators, notebooks, typewriters, newspapers, magazines, post offices, filecards, and telephones. Whether the software is better or not (and it often is), it always *feels* better. Even if you use your spreadsheet program to add two plus two, compared to pen and paper it feels like something completely new and wonderful.

We know when creative work is good by how much it inspires us to follow through. I know that Robert Pirsig's *Zen and the Art of Motorcycle Maintenance*¹ affected my life because I found myself talking about it, corresponding about it, and tracking down some of the other books mentioned in it. A mediocre computer program can evoke the same follow-through feelings just by working. That happened in a graphic adventure game called THE COVETED MIRROR² which I solved this summer.

Adventure games are elaborate story-like puzzles in which characters react to your typed-in simulated actions. Tracking clues in THE COVET-

ED MIRROR's mocked-up medieval town, I figured out how to free a thief; he helped me steal a candlestick, which I eventually traded for a shovel, with which I dug up bones, which a witch took in exchange for an invisibility spell, which I needed to snoop around the castle . . .

It took only modest animation to immerse me in the game. The King sat still but jerked his moustache each time he condemned me to the dungeon; the court jester turned a cartwheel onscreen before giving me a vital clue. The game's little jokes ("Take apple? But there's no electricity — you could never plug it in") would have made me throw a novel across the room. On the computer they inspired delight. By the time I ascended the final Peak of Shards I knew that, to live up to my feelings about it, the game's solution should reveal the hidden infrastructure of its mysteries — such as the identity of the Master Magician who'd manipulated events behind the scenes throughout the story.

I was wrong. I found the coveted mirror; the game told me I was a hero, the King said he would return someday, and it was over. There was no revelation. I felt like I'd died and gone to heaven, but failed to learn what the purpose of life was. True, I was merely gypped by my unfounded expectations — how could I judge a computer game by the standards of a novel? But even the cheapest novels tie their plots together; this game could get away with a shoddy plot because it was interactive. →

... I foresaw that in the blinding sunshine of that land, I would become acquainted with a flabby, pretending devil of a rapacious and pitiless folly."

—Conrad,
Heart of Darkness

Hacker's
Progress:
Euphoria.
Bemusement.
Confusion.
Bitterness.
The Grave.



The stakes are low in a computer game — all I lost was 45 hours. But imagine the expert systems that will appear on microcomputers soon. A medical student will choose between a book on diagnosis and a diagnosis program that simulates a particular doctor's expertise. The program will be more involving and easier to learn from — just as a spelling checker program teaches spelling better than a dictionary does, because it shows you *your* mistakes and how to correct them. But what if the program is wrong and the book is right? It's easy to scan books and check them against other sources. A computer program leads you down an interactive garden path — will we have the critical faculties to know when to halt? No doubt we'll develop those faculties, which means we'll come to judge other media by the standards of computer programs, just as many people judge films by the different (not necessarily lower) standards of TV.



THE third effect: Computer software is arbitrary and inscrutable by nature because it so completely represents the inner intricacies of a programmer's mind. The resulting need for explanation has fueled a dozen publishing companies whose work comprises the most artless, dull mass of verbiage ever bound between covers. Often you

have to scan several books to find a single clue, and wading through this minutiae doesn't help you keep a larger perspective. If Dante had used a personal computer, he might never have gotten past the third circle; he'd have been too busy figuring out why his printer couldn't handle italic letters.

Fortunately, the dominating obsessiveness you need to learn commands lasts only until the commands become second nature (which happens quickly — you can't really use a computer program until its style has been melded into your synapses). However, by that time most computer owners have become instant experts about the computer industry — partly because constant learning starts to feel glamorous, and partly because there's no other way to predict which companies will survive and thus be worth buying from.

The computer world has its own magazines and celebrities. Reading current-events computer weeklies like *PC Week* or *InfoWorld* is like reading about medieval political intrigues, with machines instead of rotating courtiers. The *Mindset* computer, the Apple IIc, the new model from AT&T or IBM — they're everyone's favorite this week, flops headed for disaster next week, out of favor next month, and either forgotten or resurrected next quarter. The constant giddy flow of press-agentry and hype

A couple of months after I began computer networking in 1979, a Significant Person in my life, someone who knew nothing about computers, typed this plaintive artifact into my terminal. She was worried about me. We broke up a few weeks later.

—Art Kleiner

Hello. I am typing you this message from a friend's terminal. Here is my message: I hate computers. I hate all of you. Not only are you a cloistered, self-serving crew, but you don't or soon won't care about what is going on in the world except what you can relay back and forth. Now, don't tell me this isn't true; I have already seen the effects on a close friend. Dear Ann Landers, my friend X used to be a normal chap. Then one day somebody gave him a computer terminal and he

has turned into a weirdo. The slightest imbecilic messages (like this one) have suddenly taken on great meaning. I mean, he thinks this is literature, this computer rambling and body offering. To me, it's worse than disco. So, Ann, what do you think? Do you think there's a job for an Ann Landers to work in computers? And why am I so hostile? Well, let's see . . .

1. Computers are ugly.
2. Computers are not soft and rarely sing.

3. Computers have no social graces and eat with the wrong size fork.
4. They never, never wake you up smiling.
5. I don't know how they work, but they seem to know how I do.
6. They are another substitute for real communication/experience. They are along the same line as movies/TV/media. I mean we are far enough from experience as it is. Why bring in another substitution for going out?

—Name Withheld by Request

makes it even harder to tell the occasional real innovation from the flood of "preannounced" unfinished products.

That's why many computer journalists I know feel trapped by their beat. Maybe they got into it because they felt this technology would dramatically affect people, but once they enter the forest they knock themselves out against the trees. The frenzied, manipulative presidential campaign pack journalists of Timothy Crouse's book *The Boys on the Bus*³ are contemplative philosophers by comparison. (That's less true in the last year, as some writers have matured.)

Of course, some computer writers thrive on the melee. I heard one exclaim after a computer show that he hadn't seen anything so exciting since a Led Zeppelin tour he covered in the mid-70s. But most writers know that they're too rushed to get a real sense of how and why these new machines are important; is it any wonder that the rest of us drown in contradictory and ultimately banal data when we try to figure out our own choices and perspectives?

1967 after some East Coast magazines began paying attention to the Haight-Ashbury. The influence of what has since been called "the counter-culture" carried far beyond 1967, but the basic news stayed the same. Similarly, the basic news of personal computers won't change, whether you have a 1975 Altair, a 1982 IBM PC, a 1984 Macintosh, or the Next Best Thing of 1988. The news *is* newsworthy: that owning a computer really automates personal clerical work in innumerable empowering ways, that such personal automation produces a new type of creative tool, and that personal computers offer a definite (but smaller than generally acknowledged) step toward simulating reality. (It's also unclear how good for people such ultimate simulations of reality will be.) The liberating aspect of personal computers, like that of the counterculture, will touch many people, but it won't be the only liberation of the next decade. Must we get so excited about its details that it overshadows the other liberating possibilities that will come along?

My computer misery is ambivalent. I am similarly afraid of the effect of automobile driving on my psyche, but I won't sell my car. I guess I've learned that I can't feel happy or fulfilled if I'm obsessed by computers — and yet my computer has added much legitimate opportunity and even some joy to my life. I'm taking on a personal challenge of using computers without being obsessed by them. I'm determined to find a way. Just give me a few years. ■

1. Pirsig, Robert. *Zen and the Art of Motorcycle Maintenance: An Inquiry into Values*. New York: Bantam Books, 1974. \$3.50.
2. Berns, Eagle and Thomason, Holly. *The Coveted Mirror* game program. Geneva, Illinois: Penguin Software, 1983. \$34.95.
3. Apple II family. Crouse, Timothy. *The Boys on the Bus: Riding with the Campaign Press Corps*. New York: Ballantine, 1976. \$2.95.

The stakes are low in a computer game — all I lost was 45 hours.



DESPITE the flood of hype, personal computers aren't news anymore. Yes, they made enormous changes in people's lives, and created both a scene and a community; but though the attitudes and opportunities of computing will ripple out through the country, there's really no reason to hear about them again and again.

Instead, it's time to proclaim that the personal computer scene is dead. The Diggers of San Francisco proclaimed the hippie was dead in