

DATA SMOG

Surviving the Info Glut

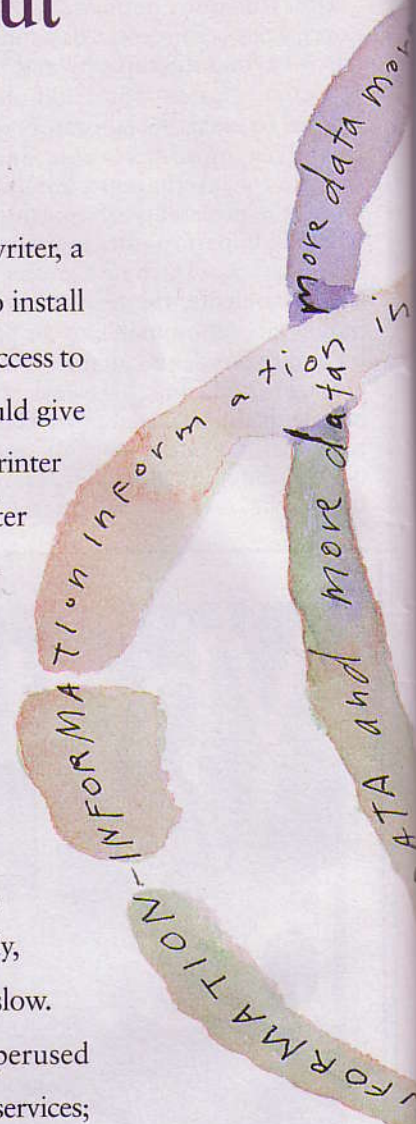
BY DAVID SHENK

DURING the infancy of my career as a freelance writer, a man came to my home in Washington, D.C., to install a prolific new appliance. The machine gave me access to the Federal News Service, which I felt sure would give me a leg up. Every day, morning, noon, and night, the printer spat out interviews from talk shows only moments after

they had been broadcast, major speeches from senators, ambassadors, and other Washington heavies, and absolutely every utterance from the White House. Without ever leaving my home office, I felt plugged in.

The installation resulted from my decision to confront the rushing tide head on, to try to keep pace with the new and speedy, and to more or less disregard the old and slow. As part of this approach I doggedly perused numerous newspapers, magazines, and wire services; I continually checked my e-mail; I watched Cable News Network; I stopped spending time with books and other cumbersome material that felt more like yesterday.

The ability to churn out ever greater volumes of information in a variety of formats has exceeded our ability to process it. Fortunately, firm action, both personal and political, can help clear the air.



ILLUSTRATIONS BY BLAIR THORNLEY

But I soon found that my reliable Federal News Service printer expected me to be its equal. It could print two pages a minute—why couldn't I read two pages a minute? The printer had just spewed out a dozen transcripts. Was I still working on that same paragraph?

Somewhere along the line, the empowering eagle became an albatross. In a month or so, I pulled the plug. The nice man came back and carted the machine away. I locked the gate behind him.

Some years later, in a classroom at Columbia University, I attended a guest lecture given by Brian Lamb, sometime anchor of the two C-SPAN channels, which broadcast congressional debates and other government proceedings. For an hour or so, Lamb spoke confidently about the history of C-SPAN and why he believed it to be a vital public service. He boasted of his plans to introduce the new cable channels C-SPAN3, C-SPAN4, and C-SPAN5. But then his host, Columbia economics professor and communications specialist Eli Noam, asked Lamb two simple questions: "Is more information necessarily good? Does it really improve the political process?"

"I haven't got a clue as to whether it's good or bad," Lamb replied. "But you can't stop this process. It's the American way. Which part of the library or the Internet do you want to shut down?"

At home, at work, and even at play, communication has engulfed our lives. To be human is to traffic in enormous chunks of data. "Tens of thousands of words daily pulse through our beleaguered brains," says philosopher Philip Novak, "accompanied by a massive amount of other auditory and visual stimuli. No wonder we feel burnt."

If the concept of too much information seems odd and vaguely inhuman, that's because, in evolutionary-historical terms, it is. For 100,000 years people have been able to examine and consider information about as quickly as they have been able to create and circulate it. A range of communication technologies from the drum and smoke signal to the telegraph and telephone enabled us to develop and sustain culture and overcome our fear of others, diminishing the likelihood of conflict. But in the middle of this century the introduction of computers, microwave transmissions, television, and satellites abruptly knocked this graceful synchrony off track. These hyper-production and hyper-distribution mechanisms have surged ahead and left us with a permanent processing deficit—what

Finnish sociologist Jaako Lehtonen calls an "information discrepancy."

In 1850, 4 percent of American workers handled information for a living; now most do, and information processing, as opposed to manufacturing material goods, now accounts for more than half the U.S. gross national product. Information has become so ubiquitous partly because producing, manipulating, and disseminating information has become cheap and easy; with a thumb and index finger, we effortlessly copy and paste sentences, paragraphs, books, and "carbon copy" e-mail to one or one hundred others.

We crave and pay handsomely for some of the information we receive—the seductive, mesmerizing quick-cut television ads and the 24-hour up-to-the-minute news flashes. It arrives in the form of the faxes we request as well as the ones we don't; we pursue it through the Web sites we eagerly visit before and after dinner, the pile of magazines we pour through every month, and the dozens of channels we flip through whenever we have a free moment.

What is the harm of this incessant barrage of stimuli captivating our senses at virtually every waking moment? "We're exceptional at storing information," explains UCLA memory expert Robert Bjork. "But there are retrieval limitations." Memory is stored according to specific cues—contexts within which the information is experienced. When the contexts begin to vanish in a sea of data, it becomes more difficult to remember any single piece of it. The more we know, the less we know.

"We're pushing ourselves to speeds beyond which it appears we were designed to live," says Nelson Thall, research director at the University of Toronto's Marshall McLuhan Center. "Electric technology speeds up the mind to an extraordinary degree, but the body stays in place. This gap causes a lot of stress."

At a certain level of input the glut becomes a cloud of data smog that no longer adds to our quality of life but instead begins to cultivate stress, confusion, and even ignorance. Information overload crowds out quiet moments and obstructs much-needed contemplation. It spoils conversation, literature, and even entertainment. It leaves us more vulnerable as consumers and less cohesive as a society. "We tend to make very unsophisticated inferences when we're under cognitive load," says University of Texas psychologist Dan Gilbert. "Thinking deeply cannot be done." Since today's glutted environment renders consumers distracted and easily open to suggestion, data smog may just be the best thing to come along for hyperinformed marketers since planned obsolescence.

This isn't the first time we have confronted the unpleasant side effects of abundance. We who live in the most sophisticated and successful nation on earth

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have routinely found ourselves burdened by problems of excess. Now, exploring the critical distinction between information and understanding—and finding some healthful remedies—is one of the most important things we can do.

Peddling Information Anxiety

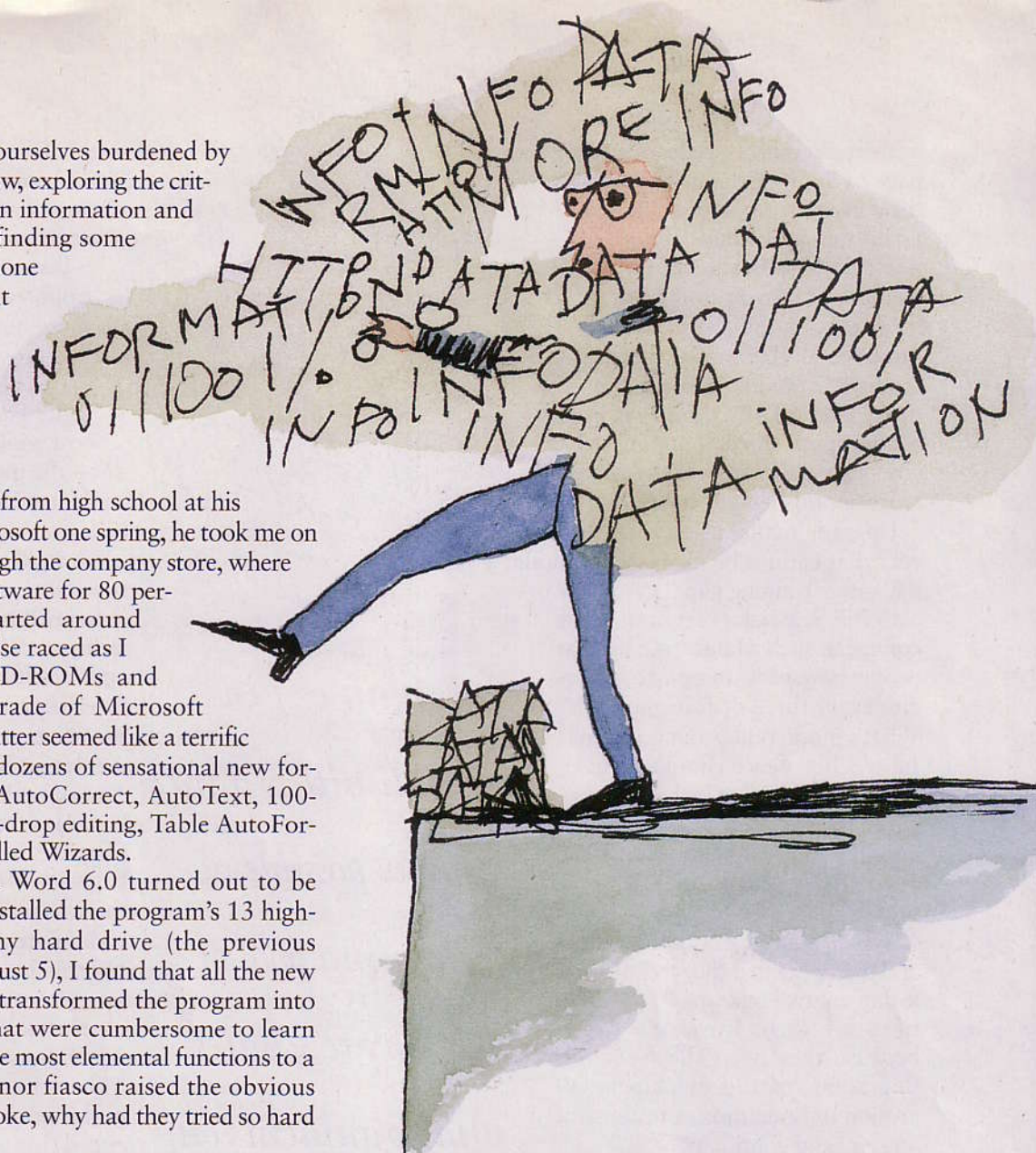
When I visited an old friend from high school at his office at Microsoft one spring, he took me on a swing through the company store, where employees can buy software for 80 percent off. My eyes darted around maniacally and my pulse raced as I amassed stacks of CD-ROMs and added the latest upgrade of Microsoft Word to the pile. The latter seemed like a terrific bargain as it included dozens of sensational new formatting features like AutoCorrect, AutoText, 100-Level Undo, drag-and-drop editing, Table AutoFormat, and something called Wizards.

But the bargain on Word 6.0 turned out to be wasted cash. After I installed the program's 13 high-density disks onto my hard drive (the previous upgrade had required just 5), I found that all the new bells and whistles had transformed the program into a zoo of capabilities that were cumbersome to learn and had slowed even the most elemental functions to a painful crawl. The minor fiasco raised the obvious question: if it wasn't broke, why had they tried so hard to fix it?

Mostly because it's terrifically profitable. The goal of the information industry is to convince consumers that, whatever they have, it isn't enough. That strategy reaps billions of dollars every year for programmers, manufacturers, marketers, and public relations professionals. If Windows 95 felt like old news in 1996, that's because Microsoft planned it that way. Since Microsoft makes most of its profits on upgrades, the real product it is selling isn't hardware or software but information anxiety.

It works. At the beginning of this decade, IBM found that people were replacing their computers every five years. By 1995, users were considering their machines obsolete in just two years. What they only yesterday regarded as critical machinery they now saw as useless plastic. Overall, by the year 2005, the nation will have tossed some 150 million computers onto the scrap heap.

Upgrade mania does not come cheap. While personal computers are relatively inexpensive compared



Information overload not only crowds out quiet moments and obstructs contemplation; it also leaves us more vulnerable as consumers and less cohesive as a society.

with their bulky predecessors, the pace of improvements is such that the personal computer habit ends up costing individuals and businesses a significant chunk of change. "Did you ever notice how, for anything else, three hundred dollars is a lot of money?" a friend remarks as we drool over CD-ROM drives in a computer store. "But in the computer universe, we don't think twice about spending it."

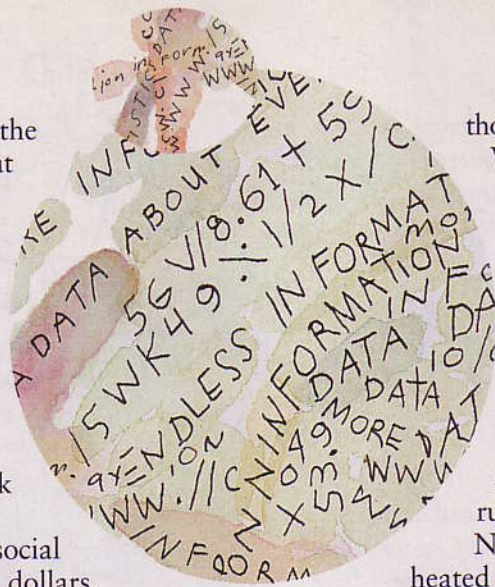
Upgrade mania also exacts a social cost that cannot be measured in dollars. "We see a training gap," says Oracle's Bill Seawick. "Technology is coming at such a fantastic pace that people have to learn new technologies every three or four months." What's more, points out economist Juliet Schor, new technology "leads to the expansion of tasks that people are expected to do. We are supposed to improve our performance and output year after year after year."

When Americans tell pollsters and therapists that they feel they are losing control over the basic structures of their lives, it's partly because they are. The ferocious upgrading of the machinery all around us undermines our sense of security and continuity.

The Normalization of Hype

On National Public Radio's "All Things Considered" one evening, reporter Chitra Ragavan is trying to make sense of the latest cancer study, which doesn't mesh with previous analysis. "If you don't have some level of confusion about how to interpret this study," the National Cancer Institute's Philip Taylor tells Ragavan, "you should."

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thought? Do vitamins prevent cancer? Would jobs have been gained or lost under Bill Clinton's comprehensive health care plan?

Because there is always an opportunity to crunch some more numbers, spin them a bit, and prove the opposite, the winner has become argumentation itself. Factionalism gets a big boost while dialogue and consensus—the marrow of democracy—run thinner and thinner every year.

Nowhere are the stat wars more heated than in Washington, D.C., where supplying grist for endless policy debates has become a significant industry. With purposefully vague and formidable names like Institute for Responsive Government and the National Center for Policy Analysis, hundreds of so-called "think tanks" have popped up to become masters of contention. Shaping the mood of Washington begins with press play, and every think tank has a point person to coordinate the flow of information. "I probably have four to five thousand journalists on my system," estimates Vincent Sollitto of the American Enterprise Institute. "That's just about every journalist in the world. They are cross-referenced in a tier form—national media, regional media, trade press, foreign press, and then cross-referenced by interest code—people interested in the environment, in economics, in other topics."

Public relations agencies profit handsomely from fanning debates, and television shows like "Cross-fire" are specifically designed to exploit the entertainment value of the stat-war phenomenon. The charges fly back and forth across the table as furiously as a ping pong ball. But there is no referee and no official scoring; the show always ends before viewers have time to gauge the accuracy of the shots.

The statistical anarchy freezes us in our cerebral tracks: we react to an overabundance of competing expert opinions by simply avoiding coming to conclu-