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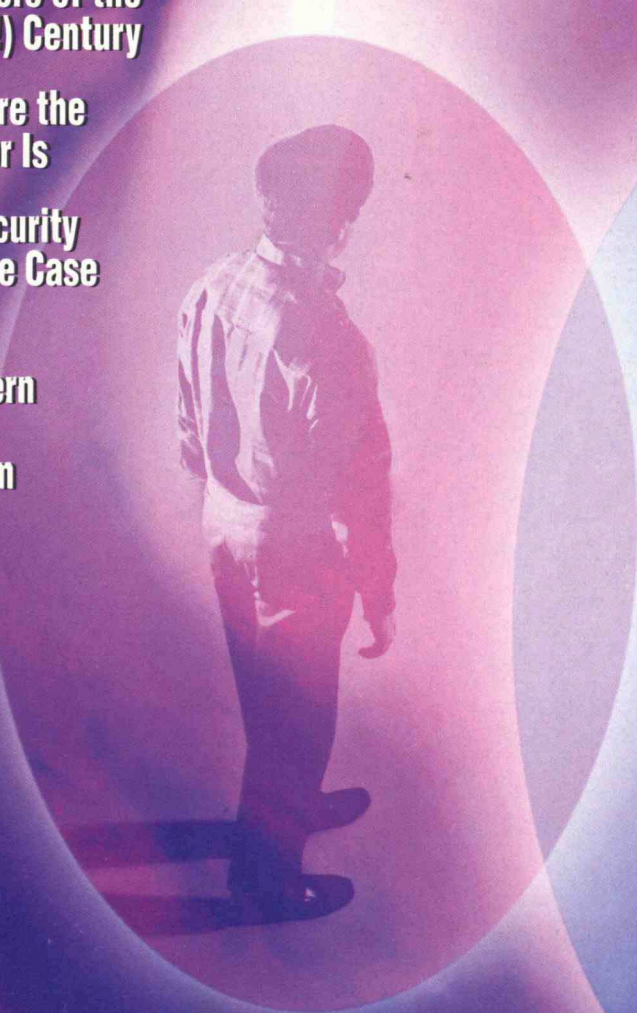
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
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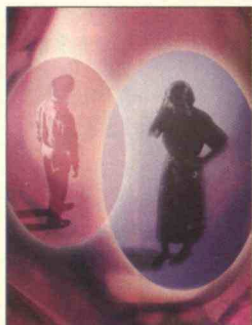
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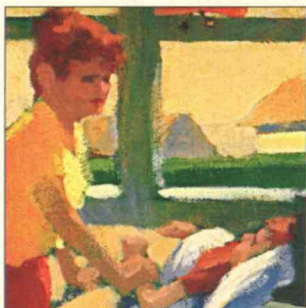


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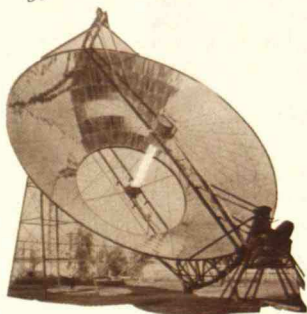


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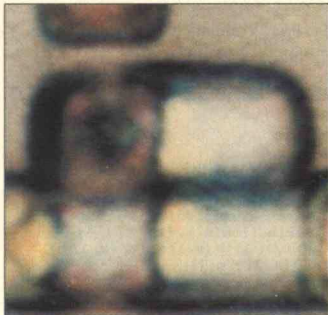
Formerly communist nations have tried to privatize state-owned firms too quickly by cutting wages rather than modernizing manufacturing—an approach that has failed to attract many investors. Pulling the region's economies back from the brink will require government to remain involved with constructive and patient policies.



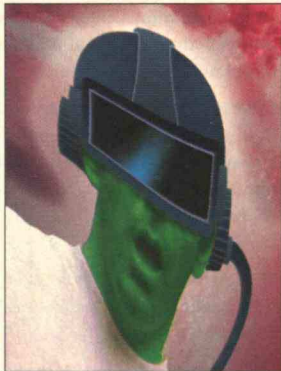
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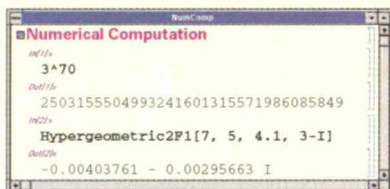
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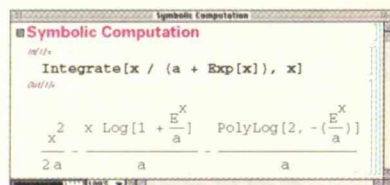
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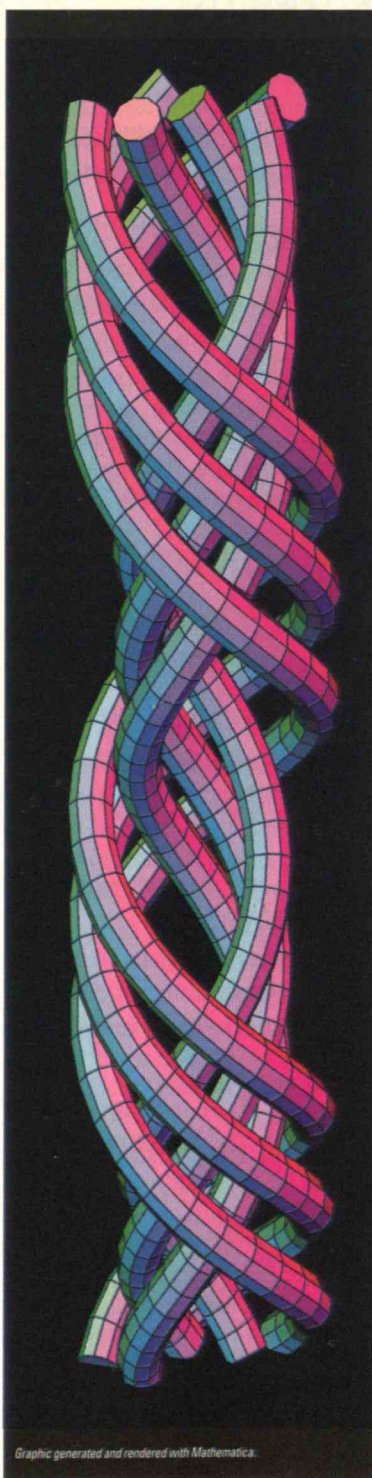


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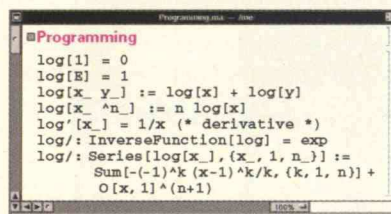


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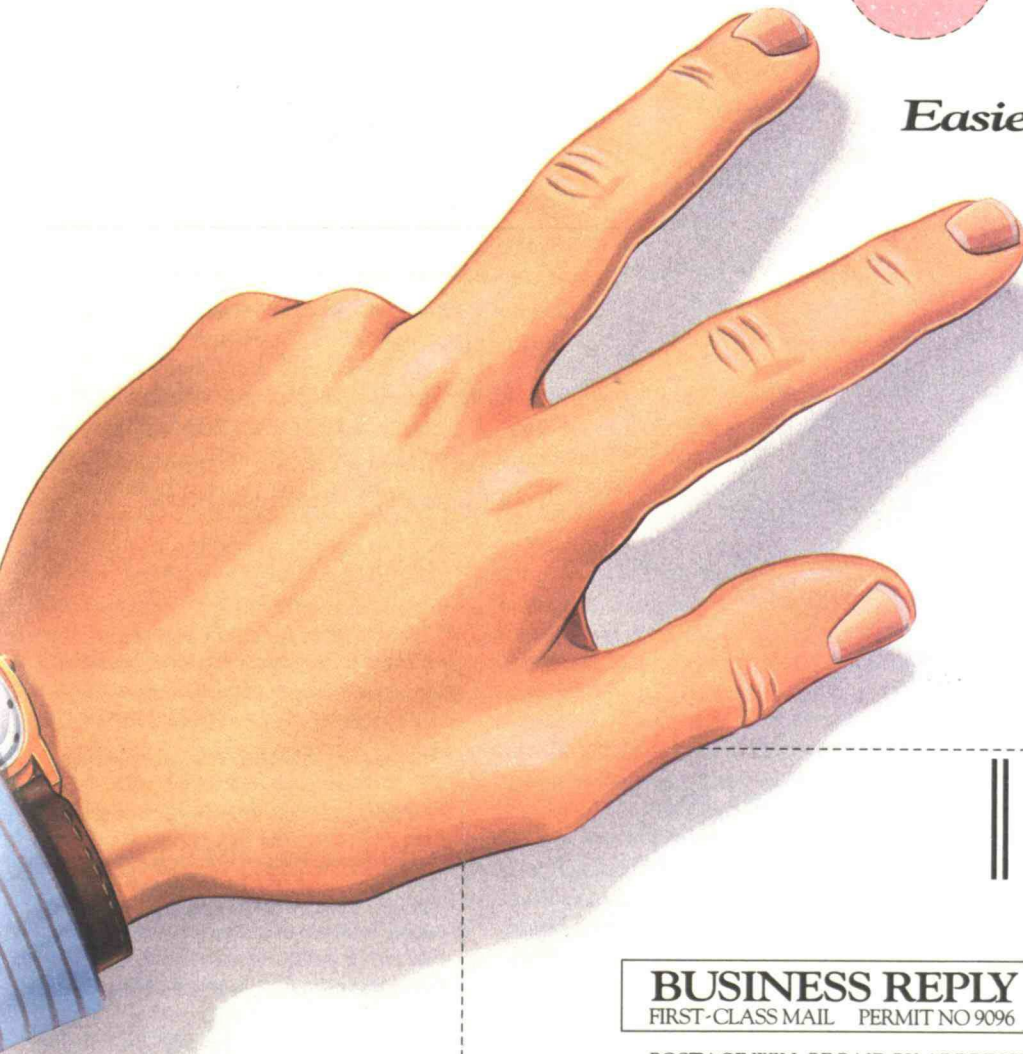
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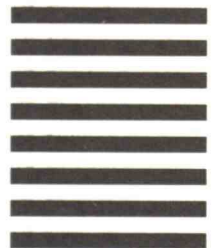
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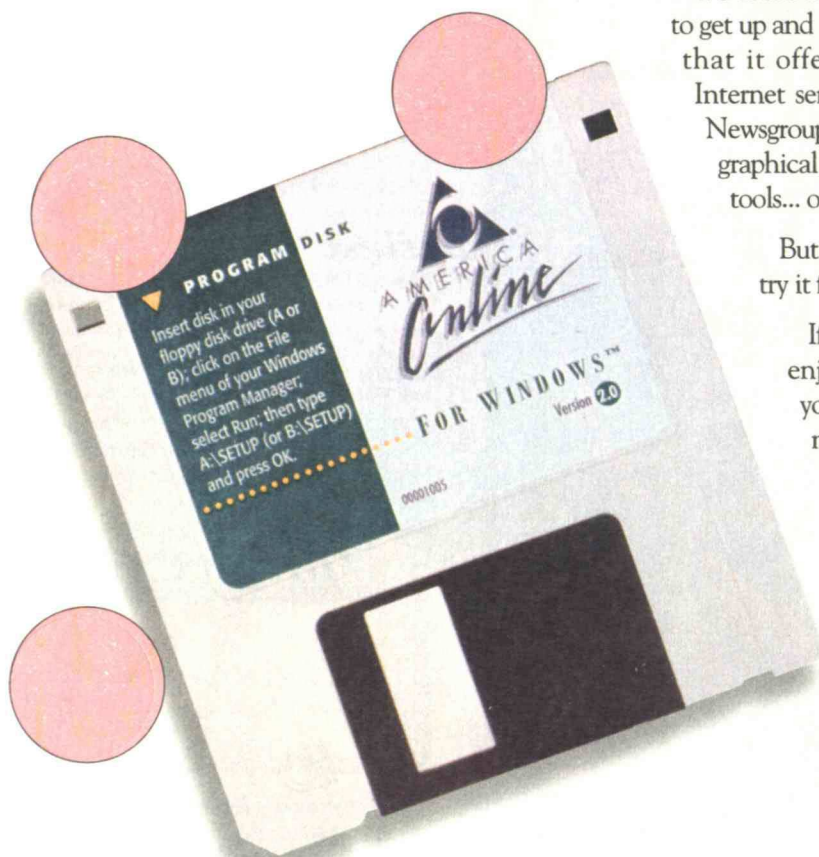
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## Debunking the Debunkers

MUSEUMS and libraries make me hungry. The immersion in great artistic and intellectual works stirs in me a craving for something elemental and simple: I don't want to leave the lobby without knowing where the snack bar is.

Something similar seems to be happening in the media now, regarding the phenomenally rapid growth of online communications, in particular the Internet. Pundits sampling the gigabytes of words and pictures are getting cranky, demanding that the Net give them something it's not designed for. *Newsweek* runs a piece entitled "The Internet? Bah!" The *New York Times* frets about the "addiction of life online." Commentators in *Technology Review* associate a variety of maladies with the growing interest in computer networking. And media critic Neil Postman, a professor of communications at New York University, heaps scorn on the notion that the Internet is the harbinger of a better society. "Cyberspace, shmyberspace," he intoned recently in a speech at Harvard, asserting that the last thing people need nowadays is more information.

Add the exaggerated complaints about how "flaming" renders the Internet incompatible with civilized discourse, and the despair that much online information on the Net is pretty frivolous—to many, it has become nothing but a cosmic sex boutique—and you have an entire genre of commentary: cyberbacklash. It has become difficult to utter the phrase "information superhighway" in polite company anymore unless accompanied by an ironic smirk alerting the listener that you never really fell for all that silly hype.

Thoughtful people are right, of course, to insist that information technologies deliver what their promoters promise. And there is certainly much to criticize. Many network enthusiasts display an annoying jingoism, a get-onboard-now-

and-we'll-solve-all-the-problems-later attitude—a kind of digital manifest destiny. It is also way too hard for even an experienced hand to navigate the Net, which lacks such basic amenities as comprehensive directories of people and services, and it can be a time sink for the undisciplined.

But the rush to spotlight all that is wrong with the Internet is itself an overreaction to excessively optimistic promises, fulfilling a cycle that is comically predictable to anyone who has followed

*If you  
don't like the Internet,  
wait a minute.*

---

the introduction of new technologies. First comes the buildup ("it will change the world!"), then, when the technology proves to be less than instantly revolutionary, the debunking.

As with many other technologies, debunking of the Net often goes too far. Some criticism paints an unrealistically sunny picture of the precomputer alternative, for example. Astronomer Clifford Stoll, who gained fame a few years ago as author of *The Cuckoo's Egg*, the tale of how he tracked down a German spy ring operating over the Internet, now charges that many of the Net's reputed benefits are a myth. In the recently published *Silicon Snake Oil*, Stoll—whose opinions carry substantial weight because of his unassailable credentials as a Net-using scientist of long standing—rhapsodizes about the old-fashioned card catalogs that computer databases have displaced from many libraries. But while extolling the beauty of the wood cabinetry and the look and feel of the little cards therein, Stoll says little about users' typical experience with a card catalog, which consisted of copying down lots of alphanumeric gibberish onto little slips of paper and then roaming the library, only to discover that half the needed books had been checked out or lost.

Similarly, in scoffing at the Net's contribution to civic life, critics implicitly award unearned points to the status quo. A *New Republic* essay derides Net rhetoric as more "alarming" than "noble"—as if conventional, off-line political speech always reverberated with Lincolnesque wisdom and Churchillian eloquence.

Many cybercritics deride the Net, and information technologies more generally, for their failure to exactly duplicate the real world. But why must there be only one "real world"? No one seriously thinks that cyberspace is a replacement for physical existence, where you get to smell, taste, touch, and eat. You can't curl up on the sofa and read an interactive CD-ROM like you can a printed magazine. You can't take a grand piano to the beach, either, but that doesn't make pianos less worthy than, say, guitars. On the other hand, you can copy a passage from a magazine article you're reading online and e-mail it to a dozen friends and acquaintances without breaking stride.

As a mass medium, the Net is still brand shiny new. Just an eyeblink ago, the only people who used computers to talk to each other were research scientists and hobbyists. Now, suddenly, your company has a Web home page and is trying (probably without much luck, so far) to sell products online. Your technophobic friend has fallen in love with e-mail, and your children are picking up computer-programming tips from strangers in Norway.

Anything that comes on so fast will have its flaws. I suspect that when we first started writing on paper instead of carving on stone, some people griped about the new medium's flimsiness while others clung to their chisels and smugly claimed that the expression of clear thinking required strenuous physical effort. But damning the Internet because it is not the Shangri-la that some hopeful boosters have claimed is like knocking Alexander Graham Bell for not thinking through the etiquette of call waiting.

—HERB BRODY



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# Letters

## DEFENSE-FIRM REALITIES

"The Myth of the Specialized Military Contractor" (*TR April 1995*) by Maryellen Kelley and Todd Watkins is very encouraging to those of us who feel that civil and military integration is the only long-term solution to obtaining an affordable and effective industrial base for the U.S. Department of Defense (DOD).

Many studies have shown that U.S. firms have been separating their engineering and manufacturing operations between their military and commercial efforts. The "defense way of doing things" has driven this separation through unique military specifications, procurement procedures, and accounting practices. The result is that DOD fails to reap the benefits of large-volume, low-cost commercial work that has increasingly included state-of-the-art technology. Led by Secretary of Defense William Perry, the number of advocates calling for the removal of such barriers to civil and military industrial integration has grown as the defense budget has decreased.

Kelley and Watkins argue that integration is already common in the machine-intensive durable goods sector. DOD would benefit from a study of how these firms overcame the barriers. There is more at stake than just the need to help current defense suppliers. DOD needs to be able to rely on world-class commercial suppliers who provide state-of-the-art equipment at low cost.

JACQUES S. GANSLER  
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We were delighted that *Technology Review* published Kelley and Watkins's provocative and original analysis of the defense dependencies (or lack thereof) of machine-intensive durable goods producers. Unfortunately, in our view, the arti-

cle's title "The Myth of the Specialized Military Contractor" was misleading.

The authors' survey did not cover all sectors of defense firms while it did include others with little or no defense orientation. It leaves out, for example, the shipbuilding, electronics, communications, and select service industries and did not give adequate weight to the largest, most specialized contractors.

We at the Rutgers University Project on Regional and Industrial Economics conducted a study of defense contractors that included a large-scale survey and intensive interviews at 120 firms. Our research suggests that as much as 40 percent of private-sector jobs supported directly or indirectly by the defense bud-

get are found in companies that are highly dependent on the defense industry. It is in this sector where barriers to diversification must be addressed to efficiently shift resources from defense to nondefense work, thereby saving jobs, skills, and communities. To make the transition, these firms must restructure their management, overhaul their marketing, initiate more cost-conscious production, and, above all, find a way to infuse capital. The transition is possible but not easy—even large dual-production firms like Hughes Aircraft Co. have found that they must separate commercial initiatives from defense to make the shift.

From reading Kelley and Watkins's article, one would never guess that hundreds of thousands of people have lost their jobs in defense-oriented firms during the past few years. The shame of it is that much of this loss could have been averted. Many firms failed because they could not make it through what we call the "transition trough," a period of two to three years when technical assistance, training, and bridging capital can make a difference. We agree with Kelley and Watkins that the problem is usually not the technology. Large-scale R&D efforts such as

