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A.T.&T. AND FIBER OPTICS

GRABBING AN ELECTRONIC BONANZA

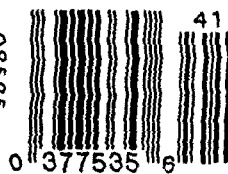
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Since the dawn of the Industrial Revolution, the arrival of new technologies almost always has been accompanied by trumpets heralding the great benefits these fantastic developments will bestow on the commonweal. Despite the fanfares, however, history demonstrates that consumers are usually both uninformed and unprepared for the consequences of technical breakthroughs. Long before public policies are debated, the entrepreneurs have organized the industry and staked out its predicted markets. That is precisely what is happening with fiber optics today.

An optical fiber is a hair-thin glass pipe for light waves that, in multifiber trunks, has virtually unlimited capacity for sending and receiving audio, video and textual content. As one expert has put it, the difference between a copper telephone wire and a multifiber optic cable is the difference between a four-lane highway and a superhighway of a thousand lanes. Fiber-optic cables recently laid beneath the Atlantic and Pacific oceans can carry 40,000 simultaneous telephone conversations, and another cable across the Pacific that can handle double that traffic is expected to go into operation in 1992.

For the most part, transmission, reception and processing is now available one channel at a time via radio, television, cable broadcasting, telephone and microwave. But the capacity of fiber optics permits simultaneous access to those services as well as hundreds of others in the home and workplace, from TV entertainment programs to a burgeoning number of

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Bonanza

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data bases. Moreover, fiber optics makes passive consumption a thing of the past. *The Nation*, for example, could provide a left-liberal political and cultural bulletin board directly to its subscribers. Any reader with a computer terminal could communicate with anyone else on the *Nation* network, without having to go through a distributor or editorial controller.

Not surprisingly, giant corporations like McDonald's and Sears, Roebuck and Company are already tapping into fiber-optic systems, which are technically termed I.S.D.N., or Integrated Services Digital Network. So are telephone and electrical utilities, major universities, such as the Massachusetts Institute of Technology, and the U.S. military. Together these and other major institutions are installing millions of miles of private fiber-optic networks. The United States could well be almost completely linked by this transforming technology by early in the twenty-first century. The country could have a universal information system, says Eric Sumner, vice president of A.T.&T. Bell Laboratories, "to give any customer any kind of voice, data or image service in any combination, anywhere, any time."

But who will rule this brave new world? Ten years ago, well before fiber optics became the communications catchword it is today, the French journal *Telequal* summed up the danger tersely: "Whoever controls the telephone is powerful. Whoever controls the telephone and TV is very powerful. Whoever should one day control the telephone, TV, and the computer would be as powerful as God the Father." Sensing heavenly profits, the big communications corporations are working overtime to get a lock on the rich markets created by fiber optics.

Just this past summer A.T.&T. jumped into the fray with both feet. Traditionally, A.T.&T. has been a "common carrier," limited to moving information and messages along its lines but legally barred from supplying any content whatsoever. A Federal court ruling on July 28, however, allowed this prohibition on A.T.&T. (decreed when the Bell System was broken up in 1982) to expire on schedule August 24. Thus, the huge long-distance and manufacturing conglomerate may now generate and sell a range of electronic services made possible by fiber optics. But A.T.&T. is now only a wholesale supplier, with no local telephone operations. It

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may sell its information services only to retail systems such as cable TV and broadcast stations. Local telephone companies remain common carriers, forbidden to transmit programs and information.

Judge Harold Greene, who granted A.T.&T.'s fervent request that the ban on content generation be permitted to lapse, held that sufficient competition now existed from other large corporations, such as Dow Jones & Co. and Reuters Holdings Inc. "The monopoly or quasi-monopoly situation that gave life and reason to the electronic-publishing prohibition on A.T.&T. no longer exists," Judge Greene said. In anticipation of the favorable decision, the company has been spending some \$2.5 billion annually on research and development.

So far Judge Greene has refused to end the ban against content supply by the seven Bell phone companies, largely because they have monopolies in their own regions. But, like A.T.&T., most of the so-called Baby Bells are optimistic that eventually their day will come. In some instances they already have created information "gateways" that will facilitate the supply of services along fiber-optic cables. At least five of the seven Bell Operating Companies (B.O.C.s) are conducting consumer tests of fiber-optic services to private homes. GTE of California, for example, has entered into an agreement with a cable system in Cerritos, a suburb of Los Angeles, involving 1,000 homes.

Last year John Malone, chairman and C.E.O. of Telecommunications, Inc., the largest multisystem cable company in the world, told a Congressional committee that a "super-monopoly" might be the most efficient way to serve the nation's consumers. The Federal Communications Commission is doing nothing to discourage such cozy notions. It is considering ending the prohibition against the B.O.C.s'



building or buying into cable television systems in their regions. In July the United States Conference of Mayors adopted a resolution calling on Congress to allow telephone companies to "own and operate cable systems," thus joining the National League of Cities and the United Conference of Black Mayors in seeking an end to the legal barriers against B.O.C. entry into cable. In a speech at the July Conference of Mayors, James Mooney, president of the National Cable Television Association, complained that the telephone industry is "seizing on cable's political problems, and the consumer press's fascination with magical sounding technology, to shoot their way out of their traditional role as common carriers and get into the television information and content business."

Cable certainly has political problems. The mayors, and several key members of Congress, are fed up with the monopolistic practices and arrogance of the industry, which Senator Al Gore, a member of the Senate Communications Subcommittee, compares to the Cosa Nostra. More than half of all U.S. families are now cable subscribers, and the industry is one of the nation's most profitable. As cable companies are bought and sold, new owners take on greater debt and consequently cut costs and increase rates. Senator Daniel Inouye, who chairs the subcommittee, noted at a hearing earlier this year that the panel had evidence indicating that many cable operators had raised rates 50 to 100 percent. A General Accounting Office survey found that cable rates for the basic services have increased 29 percent since deregulation.

Permitting B.O.C.s, most of them already cash-cow monopolies, to start playing the same game of rate inflation in the name of competition is like arguing that there is something to choose from among network news programs. Should B.O.C.s eventually be permitted to supply video programs as well as video carriage, the goal of untrammelled and universal communications will be in mortal danger.

Three elements are central to all systems of communications: content, carriers and consumers. Content freedoms should be sacrosanct—uninhibited and competitive in an open marketplace of ideas and services. Carriers have the obligation to transmit whatever the content suppliers who pay them want, without censorship. But cable and broadcast carriers, governed only by the profit motive, now accept and reject content at will—and the content providers who are turned away have no alternative.

The result is a supply bottleneck for a broad range of useful programs and services in areas such as interactive education, job training, health, safety, nutrition, tele-shopping and person-to-person computer networking, to name only a few. That such a kaleidoscopic market exists is attested to by the recent growth and success of special-interest consumer magazines, professional journals and learning tapes. We are a nation hungry for variety.

Fiber optics, inherently a two-way system, could break this bottleneck by providing carriage for a myriad of optional pay services, to the great benefit of consumers with all needs and interests. Mass audiences may continue to buy videocassettes of big Hollywood films or sit transfixed watching *Monday Night Football*. But individuals, businesses and institutions can also have the option of buying and selling specialized programs that are of value and profit to them but would not attract enough viewers to win advertising support.

Without common carrier regulations at the Federal level, however, fiber-optic transmission is likely to become another case history of entrepreneurs in new communications technologies seizing product and content control without public awareness or constitutional challenge. The essential legislative safeguards are straightforward: Any person should have the legal right to construct, own or operate any communications carrier or processing facility provided it is regulated by common carrier principles that require universal, nondiscriminatory access and prohibit carrier engagement in content. Happily, the Commerce Department has encouraged such legislation. Its Telecommunications and Information Administration recommended that "impediments to . . . telephone companies offering video common carriage in their service areas should be removed, allowing them to provide video transport (not programming services) directly to subscribers."

Congress should authorize telephone companies to supply video on those terms, which would enable the United States to catch up with nations that have opened their telephone systems to creators of a wide variety of services—like videotext, the two-way text and graphics network, which is undergoing vigorous development in Britain, West Germany, Japan, Canada, Italy, the Netherlands and Spain.

The world's biggest videotext system is France's Minitel, which has already given away 4 million terminals and keyboards (worth \$160 a set; the cost is embedded in the telephone rate charges) and hopes eventually to reach 8 million households, or almost a third of the nation's telephone subscribers. More than 9,000 information providers use the network to sell their services, which range from electronic telephone directories to dating services.

The United States could be well on the way to having many such systems by the end of the century. The longer the delay in seizing the opportunities for universal common carrier fiber-optic transmission, the more difficult it will be to prevent the well-heeled corporate developers from gaining concentration of control by vertical integration of carriage and content. Congress can avert this antidemocratic trend, and should do so quickly. □