

**AMERICAN PUBLIC POWER ASSOCIATION
NATIONAL TELECOMMUNICATIONS WORKSHOP
NASHVILLE, TENNESSEE
October 1, 1994**

**THE ESSENTIAL ROLE OF CONSUMER-OWNED ELECTRIC UTILITIES IN
DEVELOPING THE NATIONAL INFORMATION INFRASTRUCTURE:
A HISTORICAL PERSPECTIVE**

By James Baller*

“Those who cannot remember the past are condemned to repeat it.”

George Santayana¹

“[M]eaningful competition is often far easier to praise than to arrange.”

John D. Donahue²

“The future isn’t what it used to be.”

Variously Ascribed³

The Clinton Administration has declared that the development of an “information superhighway” is a national priority and has articulated five fundamental principles upon which this policy is based. These are to encourage private investment in a “National Information Infrastructure (NII)”; to provide and protect competition; to provide open access for consumers and service providers; to provide for “universal service” to avoid creating a society of information “haves” and “have nots”; and to encourage flexible and responsive governmental action.⁴

At the same time, several bills that would overhaul the telecommunications laws are working their way through Congress. These bills focus on eliminating barriers to competition among the major telephone and cable television companies, on the assumption that such firms, if freed to enter each others’ traditional domains, would make the heavy capital investments in information infrastructure necessary to compete effectively in the potentially vast market for video, telephone, data and other “multimedia” services.

At the time these bills were introduced, few in Congress had given much thought to the role that electric utilities might play in developing the information superhighway. Few knew that electric utilities have installed, or are considering installing, extensive and increasingly complex communications infrastructure to serve their internal needs and to carry out critical demand-side management and load shaping functions.

In fact, all electric utilities, whether owned by units of state or local government, organized as electric cooperatives, or owned by private investors, are ideally positioned to play a role in the construction of the

* James Baller is the senior principal of the Washington law firm of Baller Hammett, P.C.

NII. Electric utilities have the infrastructure in place to develop the NII, they have the ethic of universal service, and through their participation they will inject an additional element of competition in the delivery of telecommunications and information services.

Utilities have the greatest single industry requirement for “real-time” communications capabilities in the nation. To meet these information and system command-and-control needs, utilities have constructed sophisticated communications networks that include virtually all of the media that will be incorporated into the NII -- fiber optic cable, coaxial cable, twisted pair copper wire, microwave, trunked land/mobile radio systems and power line carriers.

The demands of the electric utility industry for telecommunication and information services are expected to increase in the future in order to implement energy conservation programs and to enhance the control, reliability and responsiveness of electrical service to the public, in the wake of the competitive environment formalized by the Energy Policy Act of 1992. Efficient operation and survival in a more competitive environment are driving utilities to develop new and enhance older communications networks. Computers and microprocessors will play an increasingly important role in improving distribution efficiency. Advanced distribution devices will replace mechanical devices that control power flow on distribution systems. Computer technology will make real-time pricing a reality in the near future. Sophisticated communication networks will be essential for utilities to capitalize on these investments.

Concurrent with the expansion of utility communication needs is the convergence of what has been to this point discrete communication services or markets. Thus, the communications facilities needed by utilities for load management and control operations are the same facilities that will carry telephone conversations and cable television entertainment and will permit interactive communications.

The entire electric utility industry has worked to ensure that the Administration and the Congress recognize the role that electric utilities can play in the development of the NII. In the Senate, there is evidence that the message has been received. S. 1822, “The Communications Act of 1994,” introduced by Senator Ernest (Fritz) Hollings (D-SC) specifically mentions electric utilities as potential providers of telecommunications services. It now appears certain that the contributions that can be offered by electric utilities will not be overlooked.

The danger still remains, however, that policy makers at the federal, state and local levels will neither recognize nor promote the involvement of the public power sector of the electric utility industry. That would be an unfortunate mistake. The history of the electric power industry casts substantial doubt on the notion that our Nation can depend on competition among cable and telephone companies alone, or in combination with investor-owned electric utilities, to ensure not only prompt and affordable, but also universal, access to the benefits of the information superhighway. This is the case because consumer-owned electric utilities have historically filled the gaps left by private enterprise and served as “yardsticks” for measuring reasonableness of prices and quality of services.

Indeed, if the Administration and Congress truly believe that prompt development of the information superhighway is essential, they should go beyond enacting neutral legislation and affirmatively encourage participation by electric utilities, particularly consumer-owned utilities. Given the dramatic recent decline in the pace of progress by cable and telephone companies, as evidenced by the collapse of mergers between Tele-Communications, Inc. (TCI) and Bell Atlantic and between Cox Enterprises and Southwestern Bell, the future of the information superhighway may well depend much more heavily on electric utilities than anyone

had previously realized. At the very least, Congress should make clear that all questions of interpretation and implementation should be resolved in favor of such involvement.

Lessons From the History of Electric Power

The National Telecommunications and Information Administration (“NTIA”) has stated that “[a]ll Americans have a stake in the construction of an advanced National Information Infrastructure, a seamless web of communications networks, computers, databases, and consumer electronics that will put vast amounts of information at users’ fingertips.”⁵ According to the NTIA and many others, the NII will free people to live and work almost anywhere; will make the best schools, teachers and courses widely available without regard to geography, distance, resources or disability; will bring the vast resources of art, literature and science into homes and offices; will improve and lower the costs of health care services through remote diagnosis, consultation and administration; will expand the reach of small businesses and help them become more efficient; will revolutionize home entertainment, shopping and banking; and will enhance the public’s ability to interact with government.⁶

In short, the NTIA predicts that the NII will “help unleash an information revolution that will change forever the way people live, work and interact with each other.”⁷ If this far-reaching prediction turns out to be correct, then the advent of an “Age of Information” will justly merit comparison with the arrival of the “Age of Electricity” in the 1880’s:

When electric power first emerged from the back rooms of inventors such as Charles Brush and Thomas Edison, it hit nineteenth century America with a dazzling impact. What fire had been for early man was a rough draft for the force electricity took on in lighting cities, running hundreds of thousands of industrial motors, engendering extensive networks of trolley car lines, and sparking the birth of mass communications. Even more than the railroads of a few decades before, it quickly outstripped the understanding and control of social institutions.⁸

According to popular myth, the Age of Electricity began in 1882, when Thomas Edison opened the first central electric generating station on Pearl Street in New York City.⁹ The development of the electric power industry since then has followed a path that should give pause to those who would count on telephone and cable companies to achieve the goals that the Administration and Congress have established for the information superhighway.

First, the history of the electric power industry teaches that one cannot expect private profit-maximizing firms to provide “universal service” or anything like it in the early years (or decades) of their operations, when the allure of the most profitable markets is most compelling. Thus, privately-owned electric utilities conceptualized the process of electrification as “a series of markets that could best be exploited in a particular sequence” and did not seek to furnish electricity in all markets for half a century.¹⁰

In the 1880s, privately-owned utilities focused first on lighting large cities, commercial establishments and the homes of the very wealthy. As a calculated marketing strategy, they “made the new technology synonymous with wealth, power and privilege.”¹¹ After 1888, they emphasized electrifying urban trolley systems, as this enabled them to maximize daytime use of generating capacity built primarily for lighting streets at night. After 1900, they turned to the industrial sector. Only after 1910 did the private utilities

begin to electrify the homes of common people living in the cities. Farmers and others in rural settings had to wait until the 1930s.¹²

Many smaller communities, literally left in the dark by the private utilities, formed electric utilities of their own. By 1890, more than 150 towns were operating lighting and power systems, and in the next decade, that number multiplied at a rapid pace.¹³ Because these consumer-owned power systems typically charged prices that were half the rates charged by private utilities, “common people gained access to the miracle of electric lights, while in other cities only the wealthy could afford to switch from traditional gas or kerosene lamps, or commercial businesses faced higher prices.”¹⁴

Consumer-owned power systems also filled gaps left by private utilities in many larger cities. For example, despite stiff resistance from the competing private utility, the City of Detroit established a municipally-owned power system that reduced prices by fifty percent within seven years and extended service to the stores and homes of common people. Similar experiences elsewhere caused the popularity of consumer-owned power to soar in the decade between 1897 and 1907, resulting in the formation of between 60 and 120 new systems each year.¹⁵

Second, the history of the electric power industry teaches that opening the doors to anyone willing to provide critical public services can be counterproductive and that it is essential to watch carefully the growth of private firms that enter the field. If such growth is left unchecked, the firms may become so large and complex that government institutions can no longer control or even understand them. Until government eventually catches up, the public may suffer incalculable injury.

During the 1880s and 1890s, many cities granted franchises to all who sought them, believing that this would result in maximum competition and low prices in the long term. As they learned to their dismay, that strategy had precisely the opposite effect:

[T]hese cities became ensnared in the wires of the new technology. Streets were often wired by one company and rewired by competing companies. In commercial districts where demand was high and competition was thick, forests of poles strung with wires appeared on the streets. In other districts where there was demand for only a few lights in each house, people had no access to electricity.

Vicious infighting between companies erupted. It resulted in increasing failure of service, higher costs, and gradual consolidation under companies that gained a political and economic upper hand.¹⁶

For example, in 1897 the Commonwealth Edison Company in Chicago swallowed up its 23 competitors virtually overnight, leading the *Chicago Tribune* to observe that, “Beginning this morning the sun and the Gas Trust [have] a monopoly of all the light with which Chicago is to be blessed.”¹⁷ Likewise, in 1907, the Consolidated Edison Company acquired control of 98 percent of New York City’s supply of electricity.¹⁸

Similar experiences throughout the country established “an ominous trend for those who had watched the centralization of railroads and their soaring rates and political scandals.”¹⁹ Technological advances in the transmission and generation of electric power reinforced that trend, by enabling private utilities to operate economically on a much larger scale. The major private utilities could take advantage of the new technology

by absorbing their inefficient competitors and growing successively larger. Consumer-owned power systems generally could not, as they were typically limited by law to operating in their own jurisdictions.²⁰

As the power of the private utilities grew, the only thing that they needed to consolidate their gains was a plausible rationale that would overcome the public's affection for consumer-owned power systems. In 1898, Samuel Insull, one of the most influential of the leaders of private electric utilities, furnished that rationale with the argument that electric service should be treated as a "natural monopoly." Insull proposed that franchises be granted to only a single entity in each geographical area and that state agencies fix rates and establish standards of performance for these entities under a system of uniform records and accounting.²¹

At first, Insull's ostensible attack on free enterprise and competition startled the leaders of the other major private utilities. They eventually became enthusiastic supporters, however, when they realized that they could overwhelm the staffs of state regulatory commissions and effectively eviscerate state control by pouring vastly more technical and financial resources into state rate proceedings than their opponents could afford and then recover their expenses through rate increases. The states also found Insull's arguments irresistible, and between 1907 and 1921, every state but Delaware established a state commission to regulate electric utilities.²²

As the "natural monopoly" concept took hold, the major private utilities redoubled their efforts to acquire competitors. Using interstate "holding companies," they lumped their new acquisitions together with "fantastic aggregates of geographically and socially unrelated systems scattered from hell to hallelujah," including real estate companies, water companies, street and railroad ventures, and fuel and engineering firms, ranging from the Philippines to central and southern Europe and South America.²³ As a result, "[f]or the new state regulatory agencies, it became nearly impossible to gain access to accounting figures, which faded from one set of books to another as power company operations were carried across state lines."²⁴

Third, the history of the electric power industry teaches that monopolists will use all means available to influence the opinions of lawmakers and the public in their favor and will sometimes have frightening success. Following the first World War, the major private electric utilities mounted a massive propaganda campaign -- again at the expense of ratepayers -- to trumpet the virtues of their natural monopolies and to discredit consumer-owned power systems. These efforts included flooding grade schools, high schools, colleges, libraries, and civic organizations with literature; investing heavily in newspaper and radio advertising; lavishing entertainment on media executives to ensure the dissemination of favorable news stories; subsidizing advantageous research at leading universities; and enlisting thousands of industry executives and employees as speakers on utility matters.²⁵

The information campaign often went beyond the objective and the benign. As in the McCarthy period of the 1950s, the private utilities viciously characterized the advocates of consumer-owned power as "un-American" and "bolshevik" and as "an unholy alliance of radicals."²⁶ Franklin Delano Roosevelt denounced these efforts as "a systematic, subtle, deliberate and unprincipled campaign of misinformation and propaganda, and if I may use the words -- of lies and falsehoods."²⁷

Fourth, and most important, the history of the electric power industry teaches that the presence or threat of competition from the public sector is one of the best and surest ways to secure quality service and reasonable prices from private enterprises involved in the delivery of critical public services.

In the 1920s, private electric utilities reached the zenith of their power. By the middle of the decade, Insull and fifteen other holding company leaders controlled 85 percent of the nation's electricity and seemingly had every advantage over consumer-owned power systems—a vertically and horizontally integrated industry, the ability to operate economically on a regional scale, ineffective regulation by state commissions, vast financial support from Wall Street, and dominance of public relations.²⁸ Not surprisingly, consumer-owned power suffered, declining from a peak of 3,066 systems in 1923 to 2,320 systems within four years.²⁹ Still, enough consumer-owned power systems remained to raise “troubling questions about fair rates, democratic control, and public service that would be widely debated again in the 1930s.”³⁰

In 1928, as public concern rose about the size, prices and practices of the private electric utilities, the Federal Trade Commission launched a four-year investigation of the so-called “Power Trust” of the major private utilities and their far-flung empires. In a scathing report that ran to eighty-four volumes, the FTC copiously documented a broad range of abuses, including financial manipulation, stock watering, padding of operating expenses, overpayment of executives, questionable transactions with subsidiaries, milking of operating companies, and massive lobbying and propaganda misdeeds.³¹

In the 1932 presidential election campaign, electric power became the “dominant” issue. On one side, President Hoover argued that “[t]he majority of men who dominate and control electric utilities belong to a new school of public understanding as to the responsibilities of big business to the people.”³² On the other side, Franklin D. Roosevelt maintained that:

[W]here a community, or a city, or a county, or a district, is not satisfied with the service rendered or the rates charged by the private utility, it has the undeniable right as one of its functions of government . . . to set up . . . its own governmentally owned and operated service . . . the very fact that a community can, by vote of the electorate, create a yardstick of its own, will, in most cases, guarantee good service and low rates to its population. I might call the right of the people to own and operate their own utility a ‘birch rod in the cupboard, to be taken out and used only when the child gets beyond the point where more scolding does any good.’³³

Over the last six decades, consumer-owned power systems have repeatedly proven that Roosevelt’s “yardstick” and “birchrod” concepts work well in practice. As a result, more than 2,000 consumer-owned power systems now provide electricity to approximately one out of every seven Americans and generate annual revenues exceeding \$32 billion. In recent years, these concepts have shown themselves to be equally effective in telecommunications, as more than 60 communities that also have their own electric utility system have now begun to offer their residents cable television service. For communities such as Glasgow, Kentucky; Paragould, Arkansas; Shrewsbury, Massachusetts; and many others, this has meant dramatically improved service and lower rates.

Some Thoughts About the Future

Viewed against the backdrop of history, those in the Administration and Congress who are willing to bet the future of the information superhighway on the prospect of head-to-head competition among telephone and cable companies are betting against very heavy odds. So much may go wrong with that idea that prudence dictates a more cautious approach.

First, it is highly optimistic to suppose that the major telephone and cable companies, with their long traditions of monopoly practices, would actually compete vigorously on a broad scale if freed to do so. For example, the Regional Bell Operating Companies have never mounted significant competition with each other for telephone service outside their own monopoly areas, even for such lucrative business as Yellow Pages service.³⁴ Similarly, the major cable companies have rarely, if ever, overbuilt each others' systems and have instead either avoided markets in which strong competitors operate or bought out small competitors when they wanted to enter new markets.³⁵ Rather than compete, it is more likely that the telephone and cable companies will do what the chief executive of US WEST said his firm was doing when it acquired a major stake in Time Warner, Inc.: "We're looking for a way not to beat the competition, but to be the competition."³⁶

Second, even if competition emerged for a time, it is doubtful that it would last long, particularly if the market for interactive multi-media services turns out to be smaller or slower to develop than projected. Would we then see a new wave of consolidations producing yet another generation of impenetrable and ungovernable giants such as those that arose in the electric power industry? Would we also see a massive new campaign of propaganda and disinformation? That would be particularly frightening because the new monopolists would have unprecedented control over the instruments of mass communication.

Third, as noted, one of the goals of the Administration and Congress is to ensure that the concept of "universal service" -- making basic telecommunications services available to all at an affordable price -- is advanced in the development of the NII. The Administration and Congress have good reasons for concern that our citizens may be divided into information "haves" and "have-nots," just as they were in the early years of the electric utility industry.

Under the best of circumstances, it is utterly unrealistic to assume that profit-maximizing private enterprises will -- or can -- ensure universal service within a reasonable period. Not only does the history of the electric power industry refute this notion, but so do recent statements and actions by the major telephone and cable companies.

For example, when Southwestern Bell sought to enter the cable television market, it acquired systems in Arlington County, VA, and Montgomery County, MD, two of the most affluent jurisdictions in the nation. US West's marketing strategy calls for it to start with multi-media networks in its largest and most lucrative markets and to take more than a decade to get a "ubiquitous, full-service network in place."³⁷ Similarly, in response to a survey that Rep. Edward Markey (D-MA) conducted last January, only three of the twenty major telephone and cable companies contacted said they would be willing to provide free high-capacity links to elementary and secondary schools in their operating territories, and even these companies did not agree to provide free monthly service.³⁸ Recently, a coalition of consumer-advocacy groups has alleged that, in recent filings with the Federal Communications Commission, telephone companies have disclosed plans to systematically bypass low-income and minority residences in providing "video dial tone" services.³⁹

The almost cavalier attitudes reflected in the words and actions of the cable and telephone giants are very familiar to communities served by consumer-owned power systems. The electric utility industry likes to brag that it was the originator of the concept of universal service. But the plain, hard truth is that universal electric service would never have developed on a timely basis in the absence of municipally-owned electric utilities and rural electric cooperatives.

Under the bills now before Congress, the Federal Communications Commission and joint federal and state commissions would study and make recommendations about how the telecommunications industry can be made to subsidize universal service in some fashion. But the debate is likely to be lengthy, complex and heated, with the outcome uncertain.⁴⁰ In the meanwhile, except where entities such as consumer-owned public power systems step in to fill the void, universal service will have to wait.

Fourth, in the period since the bills now before Congress were introduced, the megamergers between Bell Atlantic and TCI and between Southwestern Bell and Cox Enterprises have foundered and enthusiasm among telephone and cable companies for rapid development of the information superhighway has declined precipitously.⁴¹ According to Wall Street and industry analysts, this is attributable in part to the emergence of serious doubts about whether demand for home video and other consumer-oriented services (as distinguished from business-oriented services) is sufficient to justify the heavy capital investments involved.⁴²

Video and entertainment services do not provide the sole justification for electric utilities to be interested in telecommunications. Telecommunications technology can be used by electric utilities for improved voice communications systems, remote meter reading, automated billing, network monitoring, telemetry, switching, distribution automation and energy management, including real-time pricing, and two-way customer communication.

More and more, electric utilities are looking at their communications needs and the way these needs can be met. That is so because improving communications capability will result in deferred capital expenditures, reduced operations and maintenance expenses, improved outage responses and service restorations, enhanced system efficiencies, improved customer satisfaction, better data communication, and better public relations.

Furthermore, consumer-owned electric utilities should be encouraged not to stop after taking care of their own utility-specific communications needs, because community benefits of improved communications do not end with the utility. Tremendous opportunities also exist for consumer-owned power systems to participate in the development of the information superhighway.

Consumer-owned electric utilities are part of the local government and share the objectives and aims of the community -- quality service delivered economically. Melding the needs of different parts of a city can occur through pursuit of publicly-owned communications facilities. Such facilities can supply common benefits shared by police and fire departments, water and sewer operations, public health programs and other public functions. It can allow the creation of a burglar/fire/health emergency system and provide direct communications to citizens. It knits together city services.

The Administration, Congress and state governments should not impede, but should in fact induce, consumer-owned power systems to develop their own local communications infrastructure. They should do everything possible to encourage elected and appointed officials in communities that have such systems to seize the opportunity to bring this technology home to their local citizens. This would dramatically accelerate the pace of making the benefits of the Age of Information available to all concerned at an affordable price.

Conclusion

In the film *The Magnificent Seven*, a town that has been pillaged each year by brigands puts its fate into the hands of seven outlaws. These former villains become ennobled by the prospect of doing good and drive off the brigands, once and for all. While this theme may work well in the movies, there is little reason to believe that entrusting the future of the information superhighway to cable and telephone giants will ensure a similar happy ending. The Administration and Congress should hedge their bets by encouraging electric utilities, particularly consumer-owned power systems, to become actively involved.

1. George Santayana, Life of Reason (1905), quoted in The Oxford Dictionary of modern Quotations at 190 (Tony Augarde ed. 1991).
2. J. D. Donahue, The Privatization Decision: Public Ends Private Means at 78 (1989).
3. P. Valery or A. C. Clarke, quoted in R. Byrne, 1,911 Best Things Anybody Ever Said at 93 (1988).
4. Background on the Administration's Telecommunications Policy Reform Initiative, Accompanying Remarks Prepared for Delivery by Vice President Gore, Royce Hall, UCLA, Los Angeles, CA, January 11, 1994.
5. National Telecommunications and Information Agency, "The National Information Infrastructure: Agenda for Action," 58 Fed. Reg. 49,025 (September 21, 1993).
6. Id. at 49,026.
7. Id.
8. R. Rudolph and S. Ridley, Power Struggle: The Hundred Year War Over Electricity at 10 (1986) (hereafter "Power Struggle").
9. R. Morgan, T. Riesenberg and M. Troutman, Taking Charge: A New Look at Power at 5 (1976); Power Struggle at 28-29. In reality, power systems had already been built in Cleveland, Ohio, Wabash, Indiana, and Butler, Missouri. American Public Power Association, Public Power In America: A History at 1-2.
10. D. Nye, Electrifying America at 26-27 (1990); Power Struggle 30-31.
11. Power Struggle at 382; see also Electrifying America at 28-32.
12. Power Struggle at 29-30.
13. American Public Power Association, Public Power in America: A History at 2.
14. Power Struggle at 32.

-
15. Power Struggle at 32-38.
 16. Power Struggle at 31.
 17. Id.
 18. Id.
 19. Id.
 20. Public power systems were generally prohibited by law from operating outside of their own local jurisdictions. Power Struggle at 37.
 21. Power Struggle at 38-42.
 22. Power Struggle at 38-41.
 23. Power Struggle at 52.
 24. Power Struggle at 43.
 25. Power Struggle at 48-49.
 26. Power Struggle at 48-49.
 27. Franklin Delano Roosevelt, 1932 Campaign Speech, quoted in Power Struggle at 52.
 28. Power Struggle at 46-52; Electrifying America at 182-83.
 29. Power Struggle at 47.
 30. Electrifying America at 183.
 31. Taking Charge at 7-8; Power Struggle at 51, 195.
 32. President Hoover's comments are quoted in Power Struggle at 66.
 33. Franklin Delano Roosevelt's speech, delivered in Portland, Oregon in September 1932, is quoted in Taking Charge at 9.
 34. Testimony of Dr. Mark N. Cooper, Consumer Federation of America, on Major Mergers in the Telecommunications Industry, Before the Subcommittee on Antitrust, Monopolies and Business Rights at 5 (November 16, 1993).

-
35. Id.
 36. “Forging Links In a High-Tech Highway,” *The Washington Post* at D9 (May 18, 1993).
 37. “US WEST Prepares to Make a Big Splash in Multimedia,” *The Wall Street Journal* at B4 (January 10, 1994).
 38. “Companies May Ask Congress to Wire Schools,” *The Wall Street Journal* at B1 (March 24, 1994).
 39. “Telephone Firms Accused of ‘Redlining,’” *The Washington Post* at D5 (May 24, 1994). One firm responded by announcing a plan to offer service in several low-income areas in the vicinity of Washington, DC. This development, however, may not be as significant for communities elsewhere as the firm claims. Not only are the Washington area’s demographics and high level of interest unrepresentative of the nation as a whole, but, as executives involved in several field tests around Washington have “privately” acknowledged, staging their projects in and around Washington “allows then to play to a unique audience of decision-makers – members of Congress, the Clinton Administration and the Federal Communications Commission, whose decisions will be vital in the upcoming months.” “Wiring up Washington,” *The Washington Post*, Washington Business at 9 (July 4, 1994).
 40. See, e.g., P. Pitch, “Disconnect the Universal Subsidy,” *The Wall Street Journal* at A12 (April 4, 1994), arguing that the proposals for universal service that Congress is currently considering are, at best, premature and, at worst, “could delay the implementation of new interactive services and set back the telecommunications revolution.”
 41. See, e.g., “Stop Sign on the Information Superhighway,” *U.S. News & World Report* at 17 (March 7, 1994); “Full Speed Ahead – Maybe,” *Newsweek* at 44 (March 7, 1994); “The Big Deal That Was Too Big to Fly,” *The New York Times* at F11 (March 13, 1994); “Southwestern Bell, Cox Call Off Cable Merger,” *Washington Post* at D1 (April 6, 1994).
 42. Id.; see also “Hurdles Slow Information ‘Superhypeway’” *The Washington Post* at A1 (April 7, 1994); “High Tech, High Risk,” *Newsweek* at 55-56 (April 11, 1994).