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Earl F. Nelson Lecture: Law, Technology, and Liberty

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EARL F. NELSON LECTURE: LAW, TECHNOLOGY, AND LIBERTY

LEE LOEVINGER*

From Eisenhower to Reagan—it is a span of only 20 years, yet a period of change so dramatic that it has left many Americans both dazzled and bewildered. In virtually no aspect of life does the U.S. of the early 1980s resemble what it was in the relatively simple days of the late 1950s. What's more, the pace of change will quicken as the turn of the century approaches . . . People from every age and racial group are staggered and challenged by rapid technological advancements, especially the computer. Cancer, heart disease and other killers are less of a threat as medical breakthroughs extend lifespans.¹

Thus begins the cover story in *U.S. News and World Report* for March 19, 1984. It, like other news magazines and newspapers, chronicles the observable changes in contemporary social behavior and structure, but without much analysis of the underlying conditions that have given rise to the observable changes. I think that a more analytical examination will disclose that most of the observable social forces now operating in society are the result of changes in basic living conditions brought about by technological developments.

In the last century, a fictional story of a man who traveled Around the World in Eighty Days² was exciting—and fanciful. Today anyone with airplane fare can do it in eighty hours—or less. The average family nightly watches scenes on its home television set of events that took place that day on other continents, and sporting events in the antipodes are brought to us as they occur. Anyone with a telephone can call any city in the world and within one or two minutes be speaking to someone at the place called.

Yet, even as we calmly enjoy these marvels, new wonders are being fashioned and presented to us. Banks are selling securities and putting automated tellers in grocery stores and other places. Stockbrokers are managing cash accounts, with computerized accounting that shifts funds back and forth between securities and interest bearing deposits daily. Those with the proper plastic cards can get cash or travelers checks from machines in airports and other public places. Literally billions of dollars are transferred daily between banks by electronic connection. The whole financial world is facing radical transformation as a result of the impact of developing technology. We are promised

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1. U.S. NEWS & WORLD REP., Mar. 19, 1984, at 40.

2. The title of a book by Jules Verne published in 1872.

that the ordinary consumer will soon get services, including banking service, through his home television set. It is said that newspaper publishers, banks, and retailers will be in competition to sell services that enable people to make purchases, check bank balances, and buy and sell stocks using only a special terminal attached to their telephone at home. Some such systems are already in experimental operation, and both England and France have systems operating on a commercial basis.³

Even greater wonders are promised for the near future. Already being advertised is a filing system that will store data on a laser optical memory disc, which will be able to record and store all the information on a million sheets of letter size paper, the equivalent of all the records an average businessman produces in 30 years, in an area smaller than a hat box.⁴ Now commonplace is the ubiquitous credit card, which was virtually unknown a couple of decades ago. It is simply impossible to briefly recount the changes that modern technology has brought in our lives, since these affect everything from the clothes we wear, the food we eat, and the work we do, to the way we are born, the medical treatment we receive, and the length of our lives.

But before we become too impressed with the technological achievements and social reforms of our own age, we might take a look at some earlier periods of history. The technology of the industrial revolution, which began in England in the eighteenth century, brought changes to the life of America in the last half of the nineteenth century that probably seemed more radical and turbulent to the people of that time than contemporary change appears to most of us today. The nature of society itself changed in the nineteenth century from a rural agricultural society in which the majority of workers were employed on farms, to a rapidly growing industrial society in which the majority of workers toiled in factories. In the latter half of the nineteenth century, the industrial revolution changed the methods of farming itself. Tractors and tractor-drawn machines rapidly began to replace horse-drawn machinery and manpower. Farmers began to use combines to reap and thresh grain in one operation, and other machines to pick corn, harvest cotton, plant seeds, and spread fertilizer. Great industries that have lasted to this day developed: the textile industry with all of its complex automated operations from picking cotton and separating the fiber from the seeds, to spinning thread and weaving cloth; the steel industry; mining; meatpacking; petroleum; railroads; tobacco; telegraph and telephone. These developments were accompanied by social turmoil at least as great as that we now observe. There were enormous, bloody strikes, literally armed warfare between labor and industry. The cities teemed with waves of new immigrants, and political bosses built powerful machines in the major cities. The abolition movement and the Civil War abolished slavery. Reformers like Lucy Stone and Susan B. Anthony started a vigorous women's

3. Mayer, *Coming Fast; Services Through The TV Set*, FORTUNE, Nov. 14, 1983, at 50.

4. Advertisement of Matsushita Electronics.

rights movement, which is still vigorous today. Henry George advocated radical reform of the tax system, with a single tax based primarily on the value of land.

The ideas and causes advocated by the nineteenth century reformers were not entirely new. Few ideas for social reform are. What made ideas of the nineteenth century reformers socially significant and powerful were the social conditions created by the scientific discoveries and the technological developments growing out of them during the preceding decades and centuries. There are no new chapters in human history. All that happens is related to what went before. Society reflects technology, which rests upon science, which is simply a particular aspect of the disciplined human mind. Were we not so engrossed in our own lives and problems, we would probably acknowledge that the greatest intellectual achievements of the human race were made centuries or millennia ago.

Language is surely the most basic and essential of the intellectual tools we have inherited from our ancestors. Its origin is shrouded in the mists of prehistory, and it may have developed over a very long period of time, but it was surely a product of the human mind. The reduction of language to writing was another giant intellectual step forward in early human history. The earliest writing was that of the Sumerians in Babylonia, about 5,000 years ago. In contrast, the invention of printing is relatively recent. Johannes Gutenberg devised movable type about 1440. The first printing press in America was set up in 1639. The rotary press was invented in this country in 1845, and xerography, the now commonplace printing process, was invented in 1937.

Without attempting to review the history of science or technology, let us remind ourselves of a few of the great inventions of earlier ages which have provided the foundation of modern technology: the wheel, the screw, Euclidian geometry, Arabic numerals, calculus, Newtonian physics. Like Newton, the scientists and technologists of our age stand on the shoulders of the intellectual giants who preceded them. Likewise, modern technology was founded on inventions of the preceding century: the steam engine, the Bessemer process, the telegraph and telephone, the internal combustion engine, Einsteinian physics, electric lights, radio, and automobiles.

Even such a cursory review should remind us that science and technology are not separate fields, but merely different aspects of the same discipline. Technology is applied science. Science is the theoretical and research phase of technology. Modern scientific research, from experimentation with subatomic particles to observation of galaxies, stars and quasars at the outermost edge of the observable universe, depends on technology. Technology is helpless without science; science is impotent without technology. Technology is to science what performance is to music. The composers who write the score we call scientists; the musicians who produce the performance we call engineers. The distinction is unclear—and unimportant.

What is important is that the industrial and social developments that result from advances in technology and science have vastly improved the human

situation. Seventy-five years ago an industrial worker needed three full years of steady employment to earn the \$750 that was the original price of the Model T Ford. The worker then had no assurance of steady employment, and no fringe benefits, such as social security, pension, health insurance, sickness pay, unemployment compensation, workmen's compensation, or extra pay for overtime. The worker of today works one-third fewer hours, has all the fringe benefits mentioned, and earns \$30,000 a year, or enough to buy five new cars, representing an increase in real wages of more than forty times in about three-quarters of a century.⁵ In the large, fully-unionized mass production industries, wages are even higher. This is sometimes said to be the result of an increase in labor productivity, but Professor Peter Drucker says it was entirely due to better machines and tools, higher capital investment, and improved industrial management.⁶ Regardless of how described, the improvement clearly rests upon technology.

Accompanying the advance in material welfare, has come a vastly enlarged area of choice—an increase in personal liberty for virtually everyone. The range of choice in material goods is obvious; advertising will not let us forget it no matter how we try. Less noticed is the increase in range of choices of living conditions and of ideas offered by the proliferation of facilities for transportation and communication. The rich travel by jet planes, as do many who are not rich. The summer roads are crowded with the cars of ordinary citizens traveling across the continent, some with tents, trailers, or campers, others with boats of all kinds and sizes in tow.

The proliferation of communications media is even more significant. Broadcasting, which began little more than half a century ago, has become the dominant mass medium. In 1927, when federal regulation of broadcasting began, there were 681 radio stations on the air,⁷ but by 1934 the number had been reduced to 583 because the spectrum could not accommodate more without undue interference between stations.⁸ Television began in 1941 with just two stations.⁹ It developed little during the war, but by 1954 there were 356 television stations.¹⁰ By the end of 1983 the limited spectrum had been expanded by technology so that there were over 10,000 radio stations, more than half of which were FM stations which take considerably more spectrum space than

5. Drucker, *Quality Education; The New Growth Area*, Wall St. J., July 19, 1983, at 26, col. 3. The figures given, and those following, can also be calculated by comparing currently reported statistics with those from the BUREAU OF THE CENSUS, HISTORICAL STATISTICS OF THE UNITED STATES. There is some variation in the data, depending upon the sources used, but the general comparisons and conclusions are not significantly affected.

6. *Id.*

7. C. STERLING & T. HAIGHT, *MASS MEDIA: ASPEN INSTITUTE GUIDE TO COMMUNICATION TRENDS* 43 (1978).

8. *Id.*

9. *Id.* at 49.

10. *Id.*

the AM stations that were the broadcasting pioneers.¹¹ In addition, there were over 1,400 television stations which require even broader spectrum allocations than FM stations,¹² plus more than 6,400 FM and TV translators, which are low power repeater stations that bring radio and television to small communities with poor reception.¹³ Further, there were over 400 Low Power Television stations serving local areas, with some 25,000 applications for additional low power TV authorizations on file and awaiting action by the FCC.¹⁴ Cable television, which is capable of bringing dozens of communications channels into each home, now reaches 40 percent of the households in the country, and is continuing to expand.¹⁵

Already developed by technology and awaiting only the removal of government obstacles to operation, are hundreds of low power television stations, multichannel, multipoint distribution systems, direct-to-home satellite broadcasting systems, satellite delivered master antenna television systems, and other variants of the burgeoning electronic technologies.¹⁶ Videotapes of motion pictures can be purchased or rented and displayed on home television sets at the customer's convenience. Records and tapes of incredibly high fidelity are available to bring the performances of the world's greatest musical artists, as well as lesser performers and other audio messages into the home. Radios can be carried about, slipped into the pocket, or worn inside headphones on the ears. Publications multiply, serving every specialized occupational group and every conceivable idiosyncratic taste—as well as some that seem inconceivable to the normal person—so that there are now some 14,000 special interest magazines in the country.

Everyone who has a thought to express can find a medium in which to express it. If the radio talk shows, the letters to the editor columns of newspapers, and the special interest magazines all refuse, one can still write out a message and produce multiple copies cheaply on the photocopying machine at the workplace or at the local library or drugstore. Technology is fast eroding the mass media markets of television networks and newspaper chains by fragmenting the audience into segments too numerous to be encompassed by any medium or enterprise.

While it is necessary to conclude that technology has increased the material well being, the social choices and the civil liberties of society in general and of the average person in particular, it is not the case that progress has been steady and linear. There are quantum jumps, as when transportation changes from wagons or canal boats to railroads, then to automobiles and trucks, and finally to airplanes. Similarly, communications changes from letters delivered by pony express to telegraph and then to telephone. Mass com-

11. *Summary of Broadcasting*, BROADCASTING, Mar. 12, 1984, at 87.

12. *Id.*

13. *Id.*

14. *Id.*

15. *Telling Figures*, BROADCASTING, Jan. 2, 1984, at 114.

16. *The Tide of Deregulation*, BROADCASTING, Feb. 20, 1984, at 60.

munication changes from the town crier to small newspapers, to large circulation newspapers, then to radio, to television, and to media that we can now barely discern on the horizon. Correspondingly, social progress has periods of linear movement, followed by periods of stability; with movements first in one direction and then another.

With this inconstant course, there are those who fear and warn against technology, either in general or in some of its aspects. That is not new. In the early nineteenth century, the Luddite movement opposed the industrialization of England out of fear that it would deprive them of employment. Today there are many responsible people who are concerned that advances in computer technology will endanger our right to privacy.¹⁷ It is feared that the ability of computers to gather data from any number of diverse sources, classify, record and retrieve the data from vast data banks will expose virtually everyone to the possibility of having all personal information become available to others. However, this raises a most crucial point. The principal threat of such invasion of privacy comes from government. It is agencies like the Internal Revenue Service and the FBI that are in the business of gathering vast amounts of information about multitudes of private citizens. Indeed, private agencies have neither the power nor the resources to engage in such a costly undertaking. Thus the threat is not from technology but from government, about which I shall have more to say.

Another recent fear, although one that is fading now, is that genetic engineering may loose upon the world some awful plague. However, it now appears that genetic manipulation of plants and animals has been going on both in nature and by human practice for much longer than was previously realized. Scientists now assure us there is little danger from such genetic manipulation and that great benefits are possible.¹⁸

A glaring example of the fear of technology, apparently because of ignorance, is the case of nuclear power. Nuclear technology was first developed in the United States, and following World War II was widely hailed as promising great benefits from an atoms-for-peace program that would replace the destructive powers of the atom bomb with constructive uses. Nuclear power was to be a principal part of such benevolent use. Starting about 1957 with an experimental plant at Shippingport, Pennsylvania, nuclear power has now developed to supply about 13% of the electrical energy of the U.S. However, delays in construction caused in substantial part by constantly changing government regulations and somewhat more by litigation of those opposed to the whole idea of nuclear power, have caused the cancellation of some nuclear plants under construction and the abandonment of any plans or orders for new

17. See, e.g., Quade, *Privacy in Peril - Technology and government erode protections*, 69 A.B.A. J. 565 (1983).

18. Motulsky, *Impact of Genetic Manipulation on Society and Medicine*, 219 Sci. 135 (1983).

plants in this country since 1978.¹⁹ Other countries are not so inhibited. France produces 48% of its electricity by nuclear power, and plans to produce 90% by 1990.²⁰ Belgium produces 45% of its electric power from nuclear plants, Sweden, Finland and Taiwan 40%, and Britain 16% which it expects to raise to 20% by the end of 1984.

Time reports that one of the industry failures which is partially responsible for nuclear power difficulties in this country is the failure to follow the lead of other countries that have adopted standardized reactor designs.²¹ What the report fails to note is that a principal reason the industry has not developed or adopted standardized reactor designs is that government antitrust enforcement agencies have almost foreclosed the possibility for fear that it might lead to monopolistic procurement practices. *Time* also reports that Japan, which now gets 19% of its electricity from nuclear power, has 24 reactors in operation, 13 under construction and seven more planned.²² It comments, "The Japanese can build a typical nuclear plant within seven years, while in the U.S. the time needed can be as much as 14 years. One reason for the difference [is] Japan's relatively simple, efficient legal system makes it hard for nuclear opponents to bottle up projects with court challenges."²³

One of the underlying reasons for the anti-nuclear phobia is disclosed by a public opinion survey based on accepted content analysis and survey research techniques. This disclosed that over 90% of knowledgeable scientists in the field believe that we need and should proceed rapidly to develop nuclear energy sources, but newspaper reporters, and, even more, broadcast journalists, are predominantly hostile to this possibility.²⁴ The *Washington Post*, which has a strong liberal orientation and has generally been sympathetic to protest movements of all kinds, comments editorially:

A well-built and well-run reactor is among the safest and cleanest of all devices for generating electricity. By comparison, coal-fired plants, on which this country now depends for more than half of its electricity, are highly hazardous. Burning large amounts of coal creates a kind of air pollution that kills people. Every year the lives of several thousand Americans are, as the statisticians carefully put it, prematurely shortened by the pollution from coal plant stacks. To shift more of the power load to reactors would benefit the environment and human health.²⁵

The problems of nuclear power, which seem so dramatic and are so

19. See Stoler, *Pulling the Nuclear Plug*, TIME, Feb. 13, 1984, at 34; N.Y. Times, Feb. 28, 1984, at 1, col. 1; N.Y. Times, Feb. 27, 1984, at 1, col. 3.

20. See Alexander, *From Paris to Peking, Fission Is Still in Fashion*, TIME, Feb. 13, 1984, at 44. This article also contains the data for the other countries referred to in the text.

21. See Stoler, *supra* note 18, at 38, 42.

22. *Id.* at 45.

23. *Id.*

24. Rothman & Lichter, *The Nuclear Energy Debate: Scientists, The Media, and the Public*, PUB. OPINION, Aug./Sept. 1982, at 47.

25. Washington Post, Oct. 21, 1982, at A18, col. 1.

widely publicized today, are only a few of the most recent of the many uneasy interactions between law on the one hand and science and technology on the other. Since the confrontation between Galileo and the church—which then represented the law—in the early seventeenth century, the law has sought to control science and technology. In the case of Galileo, the issue was whether truth was to be discovered by empirical observation or by authoritative interpretation of the Bible.²⁶ That issue has been nominally settled with the ceding to science of the right to seek and proclaim empirical truth while law retains authority to command and control conduct and sometimes speech. This division is not as clear-cut as it sounds. The boundary between the proper fields of law and science is becoming less distinct, and law, science and technology are becoming increasingly intertwined. As a recent editorial in *Science* says:

In a technological society, the professional roles of many scientists and engineers become inextricably intertwined with those of lawyers, legislators and regulators. As the use of technology, particularly high technology, expands, increasing numbers of scientists and engineers will become professionally involved in the legal, legislative, and regulatory affairs of the nation. Advances in science and technology raise societal issues related to the quality of life of this and succeeding generations and to the fundamental rights of individuals.²⁷

The issue of censorship of scientific and technological speech, far from being settled, is a current and continuing debate. The publication of the American Association for the Advancement of Science, the broadest-based scientific organization in this country and probably in the world, accuses government authorities of suppressing scientific and technological publications, and laments that the “relationships between the government and the scientific and technical communities continue to be sorely troubled.”²⁸ On the other side, government authorities are concerned about the flow of high technology information with possible military applications from this country to Russia, and are strenuously seeking ways to control such “technology transfer.”²⁹ The political debate continues, with the scientists and technicians arguing that free interchange of ideas is indispensable to technical progress, and government authorities maintaining that it is dangerous to the perpetuation of freedom in this country to permit a totalitarian power like Russia to acquire the techniques that may enable it to overpower this nation and its allies. No immediate resolution of this controversy appears imminent, and it will probably continue for as long as we feel threatened by a foreign power with an alien

26. Gingerich, *The Galileo Affair*, SCI. AM., Aug. 1982, at 133.

27. Harrison, *Scientists and Engineers in the World of Lawyers, Legislators, and Regulators*, 220 SCI. 669 (1983).

28. Carey, *Handcuffing Science*, 217 SCI. 1207 (1982).

29. *Technology Transfer: A Policy Nightmare*, BUS. WK., Apr. 4, 1983, at 94; Boffery, *Stemming the Flow of High Technology*, N.Y. TIMES, Feb. 28, 1984, at C2, col. 3; Anderson, *U.S. High Tech Drained Away By the Soviets*, WASHINGTON POST, Mar. 19, 1984, at E20, col. 4. Magazines and newspapers continue to carry numerous reports on this issue.

philosophy.

Law interacts with technology in many other ways besides restraints on the publication or flow of information. The patent and copyright laws exert a powerful influence on the development and dissemination of technology. A good illustration is the home videotape recorder copyright case.³⁰ There the owners of copyrights on television programs sued the manufacturers of home videotape recorders for contributory infringement of their copyrights, on the grounds that the manufacture and distribution of the home recorders resulted in the recording of television programs which infringed the copyrights on such programs. The Supreme Court held that the recording of television programs by members of the general public was mainly for the purpose of shifting the time of watching the programs and was fair use. Consequently there was no copyright infringement and no contributory infringement. Clearly if the decision had gone the other way, the manufacture of home video tape recorders would have been severely curtailed or stopped altogether. In a bit of hyperbole, the *Washington Post* headlined its analysis of the decision: "Supreme Court Chooses Not to Stem the Tide of High Technology".³¹

Similarly, government laws and regulations limit, and in some cases halt, the development of new drugs and medications, the establishment of new transportation facilities, the establishment or extension of energy systems, such as pipelines and electric power lines, and many other uses of technology. Indeed, one may plausibly wonder whether such technologies as those of the steam engine, the automobile and the airplane would have been developed at all had the full panoply of modern regulations been in effect at the time these devices were first conceived. But whatever the impact of law may be on the development of other technologies, its greatest impact on liberty probably arises from the legal controls imposed on communications.

The relationship of law to communications—the right of speech—is so complex and has such a long history that it cannot even be summarized briefly. The entire subject is explored in depth, with analysis of legal, historical, technical and economic aspects, in a magnificent book entitled "Technologies of Freedom" by Ithiel de Sola Pool, late professor of political science at Massachusetts Institute of Technology.³² Tracing the recent development of the "technologies of freedom," Dr. Pool points out that communication, other than face to face speech, is becoming overwhelmingly electronic. Electronic communication has, from its beginning, been regulated and controlled by the government, both here and in other countries.

Systems of regulation that emerged for common carriers and for broadcasting spectrum that was then thought to be scarce have been imposed on

30. *Sony Corp. v. Universal City Studio, Inc.*, 78 L.Ed 2d 574 (1984).

31. Barbash, *Supreme Ct. Chooses not to Stem the Tide of High Technology*, *Washington Post*, Jan. 22, 1984, at A5, col 1.

32. I. DE SOLA POOL, *TECHNOLOGIES OF FREEDOM* (1983) (published by the Harvard University Press). Dr. Pool tragically died shortly after publication.

newer electronic technologies that do not require them. The history of the twentieth century has been one of strengthening the first amendment in application to the print media, but what Congress and the courts have done to free speech in the new media is quite different. Although the laws and regulations nominally bow in the direction of the first amendment, free speech in broadcasting has been compromised and curtailed by a host of regulations imposed by the Federal Communications Commission on broadcast programming, and by court decisions not only upholding such regulation but, in some cases, requiring the Commission to go further than it proposed to do in exercising control. While the rationalization for government control of broadcast speech is the scarcity of spectrum, Dr. Pool argued that the system of broadcast licensing is the cause, not the result, of scarcity. Regulation has discouraged or forbidden shared use of a frequency through resale, and has encouraged each broadcaster to act as a monopolist. Thus, it was policy, not physics that led to a scarcity of frequencies.³³ Spectrum, like many other resources such as water, trees and paper, is a limited but plentiful resource, which is squandered and misused by government regulations.³⁴

What we are witnessing today is a "convergence of modes" of communications which is blurring the lines between different media. Telephone lines are now used to send facsimiles of printed pages, and voice messages are carried on telegraph facilities. Both telegraph and telephone are transmitted over long distances by radio transmission. Most long distance telephone traffic travels by microwave, but most trans-oceanic traffic goes by satellite. Even local telephone traffic uses wireless transmission for communication to mobile units; and the number of such units is being multiplied by the development of cellular systems.³⁵ Multiplexing allows thousands of messages to be carried over the same channels, either hard wired or wireless, that formerly could carry only one or two. Most significantly, the printed and electronic media are converging and beginning to merge.

The process of printing itself has become largely electronic for mass publications, particularly newspapers. News stories feed not into typewriters but into computer terminals, are displayed on cathode ray terminals and edited on the screen. Pages are similarly composed by computers, which then control the setting of type from which the papers are printed. Computer networks are already widespread, but they promise to become much more popular. Videotext and teletext systems, requiring no more expertise to operate than the automobile or home television set, will bring news, information and advertising of all kinds into the home. Thus the computer and electronic screen will become the printing presses of the next century. But the electronic media have never enjoyed the same first amendment protection as the print media.³⁶ The present

33. I. DE SOLA POOL, *supra* note 31, at 141.

34. *Id.* at 151.

35. For a non-technical explanation of cellular systems, see *id.* at 37.

36. See *id.*; Loevinger, *Free Speech Fairness and Fiduciary Duty in Broadcasting*, 34 LAW & CONTEMP. PROBS. 278 (1969).

Congress continues to debate how much to loosen the regulatory shackles of broadcasting, with the probable result that little or nothing will be done, and the Supreme Court continues to broaden the interpretation of the first amendment with the reservation that the electronic broadcasting media present "special problems."³⁷ The resulting problem is well summarized by Professor Pool in these terms:

Electronic media, as they are coming to be, are dispersed in use and abundant in supply. They allow for more knowledge, easier access, and freer speech than were ever enjoyed before. They fit the free practices of print. The characteristics of media shape what is done with them, so one might anticipate that these technologies of freedom will overwhelm all attempts to control them. Technology, however, shapes the structure of the battle, but not every outcome. While the printing press was without doubt the foundation of modern democracy, the response to the flood of publishing that it brought forth has been censorship as often as press freedom. In some times and places the even more capacious new media will open wider the floodgates for discourse, but in other times and places, in fear of that flood, attempts will be made to shut the gates.³⁸

This, of course, was precisely the peril that Eric Blair—better known as George Orwell—warned against in his fictional *1984*. The Orwell warning was not against the development and use of technology, but against the aggrandizement and abuse of power by those in positions of legal authority. Shortly after the publication of *1984*, Orwell wrote that the dangers we should fear were "the perversions to which a centralized economy is liable," and the fact that "totalitarian ideas have taken roots in the minds of intellectuals everywhere."³⁹ It was Hitler's Germany and Stalin's Russia that inspired in Orwell the vision of an ultimate totalitarian tyranny buttressed by technology.⁴⁰ Hitler's Germany is gone, although a segment of it, East Germany under Russian domination, is little better.⁴¹ But Russia after Stalin has advanced little toward freedom for its people.⁴² A psychiatrist working for the Russian government is reported to have addressed a Soviet dissident in terms that sound as though they came straight out of Orwell's dystopia. After Viktor Feinberg had been committed to a mental hospital in Russia, the psychiatrist said to him:

37. *Virginia State Bd. of Pharmacy v. Virginia Citizens' Consumer Council*, 425 U.S. 748, 773 (1976); *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367, 386, 388 (1969); see also Loevinger *supra* note 36, at 289.

38. I. POOL, *supra* note 31.

39. Quoted in Kristol, *There'll Never Be a '1984'*, Wall St. J., Dec. 16, 1983, at 30, col. 4.

40. See Trafford, *Orwell's "1984"—Coming True?*, U.S. NEWS & WORLD REP., Dec. 26, 1983/Jan. 2, 1984, at 86.

41. Powell, *For a Peek at "1984", Look to East Germany*, U.S. NEWS & WORLD REP., Dec. 26, 1983/Jan. 2, 1984, at 94.

42. Trafford, *supra* note 39, at 86. See generally McBee, *U.S. Still a Far Cry From World of "1984"*, U.S. NEWS & WORLD REP., Dec. 26, 1983/Jan. 2, 1984, at 90; Wellborn, *Big Brother's Tools Are Ready, but . . .*, U.S. NEWS & WORLD REP., Dec. 26, 1983/Jan. 2, 1984, at 88.

Your release depends on your behavior. And your behavior, to us, means your political views. In all other respects your behavior is perfectly normal. Your illness consists of dissenting opinions. As soon as you renounce them and adopt a correct point of view, we will let you go.⁴³

Happily the United States, and much of the world, is still far from the Orwellian nightmare that we can glimpse elsewhere. But we cannot afford to become complacent or indifferent. Power has a tendency to corrupt, as Acton observed two centuries ago, and governments have a gravitational attraction for power. The great liberating movements of Anglo-American history, from the Magna Carta of 1215 through our own Bill of Rights, incorporated into the Constitution in 1791, and to the nineteenth amendment of 1920 have been limitations on the exercise of government powers deemed to be oppressive or threatening. But during the last half century the political currents have been turbulent and government actions have reflected conflicting forces and tendencies in society.

American courts, the great bulwarks of liberty, have not been immune from the tendency to expand the powers of government. A good illustration of this tendency can be seen by examining cases decided under the federal anti-trust laws. These make a particularly illuminating study because the basic statute is the Sherman Act⁴⁴ which was enacted in 1890 and has remained unchanged in its operative terms since, and also because it highlights the impact of developing technology on our thinking. The purpose of the law, and the intent of Congress insofar as there is such a thing, was rather clearly stated by the proponents of the legislation. In the Senate debate, Senator John Sherman, who gave his name to the bill, said:

The popular mind is agitated with problems that may disturb social order, and among them all none is more threatening than the inequality of condition, of wealth, and opportunity that has grown within a single generation out of the concentration of capital into vast combinations, to control production and trade and break down competition. These combinations already defy or control powerful transportation corporations and reach State authorities. . . . They had monopolies and mortmains of old, but never before such giants as in our day. You must heed [the voters'] appeal or be ready for the socialist, the communist, and the nihilist. Society is now disturbed by forces never felt before. . . . If we will not endure a king as a political power we should not endure a king over the production, transportation, and sale of any of the necessities of life. If we would not submit to an emperor we should not submit to an autocrat of trade, with power to prevent competition and to fix the price of any commodity.⁴⁵

43. Quoted in Zimbardo, *Mind Control in 1984*, PSYCHOLOGY TODAY, Jan. 1984, at 68, 71.

44. Act of July 2, 1890, ch. 647, 26 Stat. 209, *codified at* 15 U.S.C. § 1 *et seq.* (1982).

45. Quoted in H. THORELLI, FEDERAL ANTITRUST POLICY 180 (1954). This is probably the best published study of the social, political and legislative background of the Sherman Act.

To express this purpose, the Sherman Act declared in simple terms that every contract, combination or conspiracy in restraint of trade or commerce among the States, and monopolizing or attempting to monopolize any part of trade or commerce among the States, were unlawful.⁴⁶ Clearly the statute was aimed at great and powerful national aggregations of economic power. On final passage, the bill was approved without a dissenting vote in either house.⁴⁷

The first case that reached the Supreme Court under the Sherman Act was a suit to enjoin performance of a contract by which four companies that produced 98% of the refined sugar in the United States would be consolidated under common control. The trial court and the court of appeals both ruled that the Sherman Act was inapplicable because manufacture and commerce "are two distinct and very different things" and that a monopoly in manufacturing does not involve monopoly or restraint of interstate commerce.⁴⁸ On review the Supreme Court, with one justice dissenting, declared that contracts, combinations or conspiracies to control activities in manufacturing, agriculture, mining or production in any of its forms can have only an indirect effect on interstate trade and commerce and therefore are not within the scope of the Federal antitrust laws.⁴⁹ It reasoned that the fact that an article is manufactured for export to another State does not make it an article of interstate commerce.⁵⁰ Two years later, the Court held that the antitrust act did apply to railroads.⁵¹ However, in 1898 the Court reiterated the views expressed in the sugar trust case, holding that the antitrust act applies only to combinations which directly affect interstate commerce and therefore the buying and selling of cattle at the stockyards in Kansas City is not part of commerce, but is merely incidental to commerce even though the cattle have been shipped from other states.⁵²

In 1899, the Court finally applied the Sherman Act to manufacturers, holding that a combination among pipe manufacturers to eliminate competition among them and to fix the prices at which any of them would sell pipe was illegal under the Act as to all pipe sold outside the state of manufacture.⁵³ The Court reasoned that it is the sale and delivery of pipe, and not the manufacture, which is the essential part of the agreement among the defendants, and a sale for delivery outside the state makes the transaction a part of interstate commerce.

46. 15 U.S.C. §§ 1-2 (1982).

47. H. THORELLI, *supra* note 42, at 210.

48. *United States v. E.C. Knight Co.*, 60 F. 934, 936 (3d Cir. 1894), *aff'g*, 60 F. 306 (C.C.E.D. Pa. 1894), *aff'd*, 156 U.S. 1 (1895).

49. *United States v. E.C. Knight Co.*, 156 U.S. 1, 17 (1895).

50. *Id.* at 13.

51. *United States v. Trans-Missouri Freight Ass'n*, 166 U.S. 290, 326-27 (1897); *see also United States v. Joint Traffic Ass'n*, 171 U.S. 505 (1898).

52. *Hopkins v. United States*, 171 U.S. 578 (1898); *Anderson v. United States*, 171 U.S. 604 (1898).

53. *Addyston Pipe & Steel Co. v. United States*, 175 U.S. 211 (1899).

During the first decade of this century about a dozen cases under the antitrust law reached the Supreme Court, and by 1912 the Court had held that the packing house trust,⁵⁴ the Standard Oil trust,⁵⁵ the American Tobacco trust,⁵⁶ and a combination of manufacturers of 85% of the enamelled ironware in the country,⁵⁷ were all illegal. During the second decade, the Court also held that the antitrust law outlawed an agreement among 75% of the book publishers in the country to restrict the sale of books to dealers who would maintain the retail price,⁵⁸ the circulation by an association of retail lumber dealers of lists of wholesalers selling directly to consumers,⁵⁹ the union circulation of a blacklist of non-union dealers,⁶⁰ and a combination of steamship companies which charged a higher rate to shippers who shipped goods by any company not in the combination.⁶¹

However, in 1920 the Court refused to order the breakup of U.S. Steel, saying that the mere size of a corporation and its possession of great economic power are not contrary to the antitrust laws when achieved by lawful and proper means.⁶² The same year it held that the making of contracts for advertising in magazines distributed nationally in interstate commerce does not itself involve the movement of goods or merchandise or the transmission of intelligence in interstate commerce, and therefore is not subject to the antitrust laws.⁶³ In 1922, the Court held that professional baseball is not subject to the antitrust laws.⁶⁴ In an opinion by Justice Holmes for a unanimous court, it was said that the business of giving baseball exhibitions is a purely local affair, even though it involves travel by the ball clubs from state to state, since the travel is merely incidental to the exhibition. Further, the Court reasoned that baseball involved personal effort or labor, which is not a subject of commerce, and illustrated the absurdity of the contrary conclusion by pointing out that "a firm of lawyers sending out a member to argue a case, or the Chautauqua lecture bureau sending out lecturers, does not engage in such commerce because the lawyer or lecturer goes to another state."⁶⁵ The Court has adhered to the result of this case in 1953⁶⁶ and again in 1972,⁶⁷ although the reasoning

54. *Swift & Co. v. United States*, 196 U.S. 375 (1905).

55. *Standard Oil Co. v. United States*, 221 U.S. 1 (1911).

56. *United States v. American Tobacco Co.*, 221 U.S. 106 (1911).

57. *Standard Sanitary Mfg. Co. v. United States*, 226 U.S. 20 (1912).

58. *Straus v. American Publishers' Ass'n*, 231 U.S. 222 (1913).

59. *Eastern States Retail Lumber Dealers Ass'n v. United States*, 234 U.S. 600 (1914).

60. *Lawlor v. Loewe*, 235 U.S. 522 (1915).

61. *Thomsen v. Caysar*, 243 U.S. 66 (1917).

62. *United States v. U.S. Steel Corp.*, 251 U.S. 417 (1920).

63. *Blumenstock Bros. Advertising Agency v. Curtis Publishing Co.*, 252 U.S. 436 (1920).

64. *Federal Baseball Club v. National League*, 259 U.S. 200, 208-09 (1922).

65. *Id.* at 209.

66. *Toolson v. New York Yankees*, 346 U.S. 356 (1953).

67. *Flood v. Kuhn*, 407 U.S. 258 (1972). For commentary on the line of baseball cases, see Siegfried, Book Review, 28 ANTITRUST BULL. 783 (1983) (reviewing J.

has long since been abandoned or overruled.

A year after the baseball case, the Court held that the Sherman Act did apply to a combination of theatres which excluded some actors from all theatres controlled by the combination.⁶⁸ Three decades later, a case against defendants engaged in producing, booking, and presenting legitimate theatrical productions on a multistate basis was dismissed by a district court on the authority of the Supreme Court baseball case. However the Supreme Court reversed, unanimously holding that the conduct of a legitimate theatre business on a multistate basis constitutes interstate trade or commerce within the meaning of the Sherman Act.⁶⁹ In 1932, the Court held that cleaning and dyeing is trade within the antitrust meaning of the term, saying, "Wherever any occupation, employment, or business is carried on for the purpose of profit, or gain, or a livelihood, not in the liberal arts or in the learned professions, it is constantly called a trade . . ." and is such for antitrust purposes.⁷⁰

After President Roosevelt's effort to "pack" the Supreme Court in the mid-1930's, the Court became even more sympathetic and accommodating to the expansion of federal power through the antitrust laws—as well as through a variety of other statutes and regulations. In 1941, the antitrust laws were held applicable to an association of designers and manufacturers of women's dresses which sought to prevent copying of their designs,⁷¹ and to a similar association of designers and manufacturers of women's hats.⁷² In the same year, the Court effectively repudiated the distinction between manufacturing and commerce which had guided its decisions for the first half century after passage of the Sherman Act, and held that while manufacturing is not of itself interstate commerce the shipment of manufactured goods is such commerce, and therefore, Congress can prohibit the interstate movement of goods which were produced by employees whose wages and hours of employment did not conform to the Fair Labor Standards Act of 1938.⁷³

After this, the distinctions between intrastate and interstate activities, and between trade and commerce and anything else, while occasionally mentioned, rapidly lost all importance in antitrust jurisprudence. The business of insurance was held subject to the Sherman Act with the declaration by the Supreme Court that "A nationwide business is not deprived of its interstate character merely because it is built upon sales contracts which are local in

MARKHAM & P. TEPLITZ, *BASEBALL ECONOMICS AND PUBLIC POLICY* (1981)); Markham & Teplitz, *Siegfried at Bat: Mudville Revisited*, 28 ANTITRUST BULL. 791 (reply to Siegfried, *supra*).

68. *Hart v. Keith Vaudeville Exch.*, 262 U.S. 271 (1923).

69. *United States v. Shubert*, 348 U.S. 222 (1955).

70. *Atlantic Cleaners & Dyers v. United States*, 286 U.S. 427, 436 (1932). The concept of interstate commerce was not involved, since this case arose in the District of Columbia. *See* 15 U.S.C. § 3 (1982).

71. *Fashion Originator's Guild v. FTC*, 312 U.S. 457 (1941).

72. *Millinery Creator's Guild v. FTC*, 312 U.S. 469 (1941).

73. *United States v. Darby*, 312 U.S. 100 (1941) (overruling *Hammer v. Dagenhart*, 247 U.S. 251 (1918)).

nature."⁷⁴ A complaint alleging that local plasterers were engaged in a conspiracy to restrain trade in the city of Chicago was held to state a cause of action under the Sherman Act.⁷⁵ The Court said that where interstate commerce ends and local commerce begins is not decisive under the Act, since wholly local business restraints can produce the forbidden effects.⁷⁶ Justices Minton and Douglas dissented, protesting that the "activities complained of here are wholly intrastate, and the restraint upon interstate commerce, if any, is so indirect, remote and inconsequential as to be without effect and wholly foreign to an intent or purpose to conspire to restrain interstate commerce."⁷⁷

Similarly the antitrust exemption which the Court appeared to have carved out for professional sports in the baseball case, did not long survive the new view. An antitrust case against promoters of professional boxing matches on a multistate basis was dismissed by the trial court on the authority of the baseball case but was reversed by the Supreme Court.⁷⁸ Professional football met the same fate, although three justices dissented on the grounds that there was no principled basis on which to distinguish between professional baseball and professional football.⁷⁹ More recently, professional basketball⁸⁰ and soccer⁸¹ have been held subject to antitrust jurisdiction, and there can be no doubt now that all organized professional sports except baseball are subject to the same rule.

As late as 1952, the Supreme Court held out some hope that the learned professions would not be swept under the all embracing rule of the antitrust laws by upholding the dismissal of an antitrust suit against a state medical society.⁸² In an opinion by Justice Jackson the Court said,

We might observe in passing . . . that there are ethical considerations where the historic direct relationship between patient and physician is involved which are quite different than the usual considerations prevailing in ordinary commercial matters. This Court has recognized that forms of competition usual in the business world may be demoralizing to the ethical standards of a profession.⁸³

74. *United States v. South-Eastern Underwriters Ass'n*, 322 U.S. 533, 547 (1944).

75. *United States v. Employing Plasterer's Ass'n*, 347 U.S. 186 (1954).

76. *Id.* at 189.

77. *Id.* at 190.

78. *United States v. International Boxing Club*, 348 U.S. 236 (1955). Frankfurter and Minton dissented with Minton saying that boxing is not trade or commerce. *Id.* at 248 (Frankfurter, J., dissenting); *id.* at 253 (Minton, J., dissenting).

79. *Radovich v. National Football League*, 352 U.S. 445, 456 (1957) (Harlan, J., dissenting).

80. *Haywood v. National Basketball Ass'n*, 401 U.S. 1204 (1971).

81. *North American Soccer League v. National Football League*, 670 F.2d 1249 (2nd Cir.), *cert. denied*, 459 U.S. 1074 (1982).

82. *United States v. Oregon State Medical Soc'y*, 343 U.S. 326 (1952).

83. *Id.* at 336 (citing *Semler v. Oregon State Bd. of Dental Examiners*, 294 U.S. 608 (1935)), which held that a state statute prohibiting certain types of advertising by dentists was constitutional); *cf. Bates v. State Bar*, 433 U.S. 350 (1977) (bar

This hope survived just a quarter of a century until 1975, when the Court held that bar associations and lawyers engaged in handling real estate transactions, traditionally regarded as local activities, were subject to antitrust jurisdiction.⁸⁴ Soon professional engineers were held subject to the antitrust statutes,⁸⁵ and there is no doubt left that, regardless of field of specialization or of the concerns previously voiced by the Court for ethical considerations and professional standards, all professional organizations and professionals are subject to essentially the same antitrust rules as business.⁸⁶ Most antitrust lawyers representing professional associations no longer even raise the jurisdictional issue.

Another group that was surprised to find itself subject to ordinary antitrust rules was the bankers. In 1963, the Supreme Court found banking subject to the same rules as other businesses⁸⁷ and since then there has been a long string of banking antitrust cases, although Congress has provided somewhat different procedures in such cases.⁸⁸ A similar group that has been embraced by the welcoming but unwelcome arms of the Sherman Act is the stockbrokers and their organized stock exchanges.⁸⁹

Perhaps the most surprising of all the jurisdictional territory to which antitrust hegemony has been extended is that of local government activity. In 1943, the Supreme Court sustained a California statute establishing a marketing program for certain agricultural products that certainly had a restrictive effect upon the distribution of such products.⁹⁰ The Court reasoned that there was nothing in the history of the Sherman Act suggesting "that its purpose was to restrain a state or its officers or agents from activities directed by its legislature."⁹¹ Many years later the same reasoning was applied to activities

association restraint on attorney advertising not subject to attack under Sherman Act, although such advertising is protected by first amendment).

84. *Goldfarb v. Virginia State Bar*, 421 U.S. 773 (1975).

85. *National Soc'y of Professional Eng'rs v. United States*, 435 U.S. 679 (1978).

86. *See, e.g., American Soc'y of Mechanical Eng'rs v. Hydrolevel Corp.*, 456 U.S. 556 (1982).

87. *United States v. Philadelphia Nat'l Bank*, 374 U.S. 321 (1963).

88. *United States v. Philipsburg Nat'l Bank & Trust Co.*, 399 U.S. 350 (1970); *United States v. Third Nat'l Bank*, 390 U.S. 171 (1968); *United States v. First Nat'l Bank*, 386 U.S. 361 (1967); *United States v. First Nat'l Bank & Trust Co.*, 376 U.S. 665 (1964). There have been many more bank antitrust cases which did not reach the Supreme Court or the Courts of Appeal. *See, e.g., United States v. County Nat'l Bank*, 339 F. Supp. 85 (D. Vt. 1972); *United States v. Manufacturer's Hanover Trust Co.*, 240 F. Supp. 867 (S.D.N.Y. 1965).

89. *Silver v. New York Stock Exch.*, 373 U.S. 341 (1963); *see also United States v. National Ass'n of Sec. Dealers*, 422 U.S. 694 (1975) (stockbroker defendants held not subject to the antitrust laws as to the particular activities challenged but antitrust jurisdiction was not otherwise questioned).

90. *Parker v. Brown*, 317 U.S. 341 (1943).

91. *Id.* at 350-51.

directed by the supreme court of a state.⁹² However, the following year the Court held, by a plurality, that the same rule did not extend to municipalities established by a state constitution.⁹³ Since then, a majority of the Court has held that the strictures of Sherman Act apply to cities both organized under and exercising powers granted by state constitution,⁹⁴ as well as to state agencies not acting under explicit directions of the state legislature.⁹⁵ How far the district courts believe the scope of the Sherman Act is extended to local government units is indicated by a recent case holding that an agreement between a county and a village to deny sewer connections to a proposed land development is an actionable restraint of trade and that the annexation of land by a village is trade or commerce within the meaning of the antitrust laws.⁹⁶

With municipal land annexation now a subject of antitrust concern, it is not surprising that a court of appeals has held that the location of a football team which moved from one city to another may similarly be subject to antitrust scrutiny and liability if it appears unreasonable (or otherwise displeasing) to a jury.⁹⁷

The encompassing scope of the Supreme Court approach to antitrust law today is indicated by the language of its decision in a case holding that a combination of real estate brokers engaged in selling residential properties in the city of New Orleans is subject to the Sherman Act.⁹⁸ The Chief Justice, speaking for the Court said:

The broad authority of Congress under the Commerce Clause has, of course, long been interpreted to extend beyond activities actually *in* interstate commerce to reach other activities that, while wholly local in nature, nevertheless substantially *affect* interstate commerce. . . . During the near century of Sherman Act experience, forms and modes of business and commerce have changed along with changes in communication and travel, and innovations in methods of conducting particular businesses have altered relationships in commerce. Application of the Act reflects an adaptation to these changing circumstances. . . .

. . . .

Ultimately, whatever stimulates or retards the volume of residential sales, or has an impact on the purchase price, affects the demand for financing and title insurance, those two commercial activities that on this record are shown to have occurred in interstate commerce.⁹⁹

92. *Bates v. State Bar*, 433 U.S. 350 (1977).

93. *City of Lafayette v. Louisiana Power & Light Co.*, 435 U.S. 389 (1978).

94. *Community Communications Co. v. City of Boulder*, 455 U.S. 40 (1982).

95. *California Retail Liquor Dealers Ass'n v. Midcal Aluminium, Inc.*, 445 U.S. 97 (1980).

96. *Unity Ventures v. County of Lake*, 1984-1 Trade Cases ¶ 65,883 (N.D. Ill. 1983).

97. *Los Angeles Memorial Coliseum Comm'n v. National Football League*, 726 F.2d 1381 (9th Cir. 1984).

98. *McLain v. Real Estate Bd.*, 444 U.S. 232 (1980).

99. *Id.* at 241 (emphasis in original).

If this suggests that there is virtually no activity with any commercial aspect occurring within the United States that is not subject to the Sherman Act under the prevailing judicial view, that conclusion is borne out by review of the activities that have been subjected to antitrust jurisdiction. In addition to those already mentioned, the antitrust laws have been held applicable to grocery store chains,¹⁰⁰ hospital construction,¹⁰¹ Blue Shield health care plans,¹⁰² newspaper publishing,¹⁰³ newspaper distribution,¹⁰⁴ poultry breeding,¹⁰⁵ and the distribution of prayer books.¹⁰⁶

A different but related aspect of antitrust growth is its extraterritorial extension. It would unduly prolong this discussion to examine that aspect, but it may be of interest to note how far it has taken the courts. Many foreign countries, particularly Great Britain and some of the British Commonwealth countries, strenuously object to American efforts to give antitrust laws extraterritorial application, especially where foreign nationals are involved. This became of concern to American courts when Laker Airways, an insolvent British airline, brought an antitrust suit in the District of Columbia against a number of foreign airlines, which thereupon brought a suit in a British court to prevent Laker from prosecuting its American lawsuit. The District of Columbia district court then enjoined the foreign airlines from prosecuting their case in a British court, and this injunction was sustained by the Court of Appeals mainly on the grounds of the importance of American antitrust policy.¹⁰⁷ How this complex conflict of jurisdictions will ultimately be resolved remains to be seen.

Press reports suggest that there is a change taking place in antitrust enforcement policy, which is becoming less aggressive. But this may be more illusory than real. Two of the cases that have attracted much attention recently are the AT&T divestiture case and the LTV-Republic Steel merger. While these two cases seem to be entirely different, in fact they are quite similar as far as antitrust policy is concerned. In both situations two major industries are being restructured by private negotiation and agreement between the parties and the Antitrust Division rather than by litigation,¹⁰⁸ which now appears to be reserved for small violators of the antitrust per se proscrip-

100. *United States v. Von's Grocery Co.*, 384 U.S. 270 (1966).

101. *Hospital Bldg. Co. v. Trustees of Rex Hosp.*, 425 U.S. 738 (1976).

102. *Blue Shield v. McCready*, 457 U.S. 465 (1982).

103. *Citizen Publishing Co. v. United States*, 394 U.S. 131 (1969).

104. *Albrecht v. Herald Co.*, 390 U.S. 145 (1968).

105. *National Broiler Marketing Ass'n v. United States*, 436 U.S. 816 (1978).

106. *Costello Publishing Co. v. Rotelle*, 670 F.2d 1035 (D.C. Cir. 1981).

107. *Laker Airways Ltd. v. Sabena*, 1983-1 Trade Cases ¶ 65,885 (D.C. Cir., 1984). One panel judge dissented from the opinion. *Id.* at 956 (Starr, J., dissenting); see also *Laker Airways Ltd. v. Pan Am. World Airways*, 112 Daily Wash. Law Reporter 433 (Mar. 5, 1984) (D.D.C. 1983).

108. See 46 Antitrust & Trade Reg. Rep. 577 (BNA March 3, 1984) for a report of the LTV-Republic restructuring. The literature on the AT&T restructuring is so voluminous that citation is unnecessary and would be futile.

tions. This manner of exercising government control is more typical of the regulatory process than of the law enforcement process that has previously characterized application of the antitrust laws. Whether this approach will be more or less effective only time will tell, but clearly it is not what Congress had in mind in 1890.¹⁰⁹ One thing does seem to be obvious already, and that is that in the AT&T case the result will be that, at least in the near future, the public will get worse service at a higher price. However, the point of interest here is that, whatever procedure is adopted, the principle of expanding government power has not been abandoned. In any event, by far the great preponderance of antitrust lawsuits are private actions, and the courts do not seem to have changed their attitude in response to the reported shift in enforcement emphasis.¹¹⁰

This cursory history refers to only a small fraction of the more than two thousand Supreme Court decisions involving the antitrust laws, not to mention the thousands more that have been decided by the lower courts. However, even this small application of the law has expanded beyond the original purpose of the Congress which enacted it to control the giant aggregations of economic power that were developing at the end of the nineteenth century as an outgrowth of the Industrial Revolution. This does not necessarily demonstrate that any specific case was wrongly decided on the basis of the legal principles and the circumstances prevailing at the time of the decision, although the wisdom of some of the decisions may be questioned. However, it does illustrate the tendency of government power to expand continuously regardless of original purpose or ostensible limitations.

In some respects law and technology have followed similar courses in modern times. Both have followed the path of organic growth and evolution from fairly small and simple forms to much larger and more complex organisms. Paradoxically, both have also obeyed the second law of thermodynamics in moving continuously toward greater chaos. To some extent this growth has been fueled by a blind faith in the power of institutions to solve problems and deliver happiness to the individual—as the advertisers continuously promise us. In the past, we have believed that every problem has a technological solution; although now some are beginning to realize that every technological solution has a problem. Similarly, Daniel Boorstin says, one of the most dangerous popular fallacies is that democracy is attainable.¹¹¹

American democracy, properly speaking, has been a process and not a product, a quest and not a discovery. . . . In human history in the long run there are no solutions, only problems. . . . Every seeming solution is a new problem. . . .

109. H. THORELLI, *supra* note 45, at 229-30.

110. In *Monsanto Co. v. Spray-Rite Serv. Corp.*, 104 S. Ct. 2378 (1984), the Supreme Court declined to accept the suggestion of the Solicitor General and several other amici to reconsider the application of the per se rule to resale price maintenance. *Id.* at 4343 n.7.

111. D. BOORSTIN, *DEMOCRACY AND ITS DISCONTENTS* 120 (5th ed. 1975).

The most distinctive feature of our system is not a system, but a quest, not a neat arrangement of men and institutions, but a flux.¹¹²

One of the most threatening of the delusions of solutions is the notion that for every social problem there is a legal fix. This has resulted in an explosion of litigation, legislation, and regulation that has aroused an outcry in both the professional and popular press.¹¹³ The Chief Justice of the United States has added a relatively restrained criticism of the bar, noting that many lawyers persist in filing frivolous and absurd lawsuits, often over trivial grievances.¹¹⁴ The law schools also must share some of the blame as they persist in grinding out embryo lawyers regardless of need or demand, and despite the fact that the market is now glutted with some 650,000 lawyers, more than any other country in the world on a per capita or any other basis, and accounting for two-thirds of all the lawyers in the world, although we have only about six percent of the world's population. Sadly, many of these law school graduates will never find real employment as lawyers,¹¹⁵ although enough of them will be admitted to the bar to keep the courts overworked and the public unhappy. The proliferation of law and lawyers has been not only beyond necessity but even beyond utility.

Probably the worst result of the increasing flood of lawyers and lawsuits has been the increasing pressure on the courts to expand the limits of traditional legal principles to respond to the strident demands made upon them. Despite the clear intention of the Constitution to establish a federal government of limited power, there is no activity in the United States today that is beyond the legal power of the federal government, if it seeks to reach that activity in a technically acceptable manner. There seems to be no activity that someone somewhere does not want to have the federal government control for some purpose; and there is always a lawyer willing to help. No doubt many of the purposes are benign, some even noble. Certainly the good intentions of the legislators, executives and judges responsible for promulgating and applying the laws cannot be doubted. However, we must remember that throughout history tyrants have proclaimed worthy objectives as the reason for their tyrannies. The inquisitors did not torture and burn their victims because of sadistic satisfaction in watching the suffering of others but because of an avowed, and probably sincere, concern to save the souls of heretics. The ancients used battle, ordeal, and torture as a means of determining legal disputes not because of a desire to harm others (although they seemed remarkably indifferent to that) but because they believed that this was the way to invoke divine inter-

112. *Id.* at 121-22.

113. *See, e.g.,* Want, *The Caseload Monster in the Federal Courts*, 69 A.B.A. J. 612 (1983); *More Laws, More Lawyers*, Wall St. J., Feb. 16, 1984, at 34, col. 1.

114. Chief Justice Burger's speech of February 12, 1984, to the American Bar Association was widely reported in the press. *See, e.g.,* Margolick, *Burger Says Lawyers Make Legal Help Too Costly*, N.Y. Times, Feb. 13, 1984, at A13, col. 1.

115. *See* Lewin, *Business and the Law*, N.Y. Times, Feb. 21, 1984, at D2, col. 1.

vention as a guide to truth and justice.¹¹⁶ Today we condemn the cruel oppressions of the masters of the Kremlin, but they are even more vociferous in declaring that they do only what is necessary to serve the interests of the working class masses of the world and to protect the common people against those who would enslave them. We cannot judge their sincerity, but we can observe that their power over the people is increasingly centralized, is wielded cruelly, and that liberty languishes regardless of the objectives of those who attack it.

In contrast to law which, in general, increases liberty only as it imposes limitations on itself, that is, on the governments and governors who wield its power, technology has a natural tendency to disperse power to greater numbers of individuals and to increase both the welfare and the liberty of the societies that cultivate it. This can be observed in the correlation of the industrialized societies and the free nations of the world. About one-third of the world's population resides in countries where they enjoy both political rights and civil liberties. Over forty percent of the world's population lives in countries that are not free; and about one fourth lives in countries that are partly free.¹¹⁷ By no coincidence the free countries are the industrialized and technologically advanced countries of North America, Europe, Japan, and some of the Central South American and Caribbean countries. The not-free countries are mainland China, Russia, and many in Africa and Asia which lag in the development of technology and industry. Partly free countries include most of the remainder of those in Africa and Asia.

Ultimately, liberty must arise from the hearts of a free people. The spirit of liberty is the spirit of free inquiry and free discourse; the spirit that rejects absolutes and authoritarian or authoritative answers and official dogma. This is also the spirit of science and of technology, the child of science. No doubt the material contributions of technology provide conditions which foster liberty; but they cannot create it. It is the kinship of the spirit of science and the spirit of liberty that encourages both to flourish in the same soil.

Ultimately science and technology represent mainfestations of the human impulse to explore, to learn, to build; and they grow out of the spirit of reason, of inquiry and of skepticism. Law, on the other hand, represents the search for order and restraint. This is surely necessary in an increasingly crowded and complex world. But law tends to be increasingly centralized, with more and more government power held in the hands of a few. It is in the nature of science and technology, in contrast, that they will be practiced by an increasing number of individuals and institutions, as has in fact happened in this

116. See H. LEA, *SUPERSTITION AND FORCE* (1878).

117. *FREEDOM AT ISSUE*, (Jan.-Feb. 1984); R. GASTIL, *FREEDOM IN THE WORLD, POLITICAL RIGHTS AND CIVIL LIBERTIES 1983-1984*. Both are publications of Freedom House, 20 West 40th St., New York, N.Y. 10018, a nonpartisan organization engaged in examining and reporting on the condition of freedom in all the countries of the world. The references mentioned contain a detailed description of the status of political rights and civil liberties in every nation.

country and throughout the world. Thus, it is the spirit of science which is more congenial to the spirit of liberty than the spirit of law.

Although put in different and far more eloquent terms, a similar thought was voiced by one of our greatest judges, Learned Hand, in addressing a group of new citizens during World War II:

What do we mean when we say that first of all we seek liberty? I often wonder whether we do not rest our hopes too much upon constitutions, upon laws and upon courts. These are false hopes; believe me, these are false hopes. Liberty lies in the hearts of men and women; when it dies there, no constitution, no law, no court can even do much to help it. While it lies there it needs no constitution, no law, no court to save it. . . .

What then is the spirit of liberty? I cannot define it; I can only tell you my own faith. The spirit of liberty is the spirit which is not too sure that it is right; the spirit of liberty is the spirit which seeks to understand the minds of other men and women; the spirit of liberty is the spirit which weighs their interests alongside its own without bias; the spirit of liberty remembers that not even a sparrow falls to earth unheeded; the spirit of liberty is the spirit of Him who, near two thousand years ago, taught mankind a lesson it has never learned, but has never quite forgotten; that there may be a kingdom where the least shall be heard and considered side by side with the greatest.¹¹⁸

118. L. HAND, *THE SPIRIT OF LIBERTY* 189-90 (2d ed. 1953). The quotation is from a speech delivered in 1944.

