The New Video Marketplace and the Search for a Coherent Regulatory Philosophy

Jill Abeshouse Stern
Erwin G. Krasnow
R. Michael Senkowski

Follow this and additional works at: http://scholarship.law.edu/lawreview

Recommended Citation
Available at: http://scholarship.law.edu/lawreview/vol32/iss3/5

This Article is brought to you for free and open access by CUA Law Scholarship Repository. It has been accepted for inclusion in Catholic University Law Review by an authorized administrator of CUA Law Scholarship Repository. For more information, please contact edinger@law.edu.
THE NEW VIDEO MARKETPLACE AND THE
SEARCH FOR A COHERENT
REGULATORY PHILOSOPHY

Jill Abeshouse Stern*
Erwin G. Krasnow**
R. Michael Senkowski***

TABLE OF CONTENTS

I. INNOVATIONS IN VIDEO SERVICES ......................... 532
   A. New Over-the-Air Video Services to the Home .......... 532
      1. Subscription Television (STV) ...................... 532
      2. Teletext ........................................ 535
      3. Low Power Television (LPTV) ...................... 538
      4. Direct Broadcast Satellites (DBS) ................. 541
      5. Satellite Master Antenna Television (SMATV) .... 543
      6. Multipoint Distribution Service (MDS) ............. 544
      7. Private Operational-Fixed Microwave Service (OFS) . 549
   B. New Closed Transmission Video Services to the Home ... 550
      1. Cable Television and Interactive Cable Television ... 550
      2. Cable Interconnect Systems ....................... 553
      3. Common Carrier Wireline or Fiber Optic Services ... 554
      4. Electronic Publishing Services ..................... 555
   C. Recorded Video Services for Home Use ................... 557
      1. Videocassette Recorders and Videodisc Players .... 557
      2. Video Game Cartridges and Systems ................. 558
      3. VCR Applications ................................ 558
   D. Technological and Regulatory Developments That Could
      Permit More Efficient Spectrum Use to Produce More
      Delivery System Opportunities ........................ 560

** Senior Vice President & General Counsel, National Association of Broadcasters. B.A. summa cum laude Boston University, 1958; J.D., Harvard Law School, 1961; LL.M., Georgetown Law School, 1965.
1. General Electric Company's Two-for-One Comband System .............................................. 560

2. Conversion From Analog to Digital Transmission Techniques ........................................ 560

3. FM Multiplex Subcarriers ........................................ 561

4. Shared Use of Broadcast Auxiliary Facilities ........................................ 561

II. THE IMPENDING REGULATORY IDENTITY CRISIS ............. 563

A. Loss of Scarcity as a Regulatory Rationale ............. 563

B. Blurring of Regulatory Distinctions Between Broadcasting and Other Services ........................................ 566

1. Regulatory Differences Based Upon Nature of Service ........................................ 566
   a. Broadcast ........................................ 566
   b. Cable Television ................................ 568
   c. Common Carrier ................................ 569
   d. Private Radio ................................... 570
   e. Noncommercial Broadcasting ................. 570

2. Emergence of New Technologies Requires New Regulatory Classifications ................. 571
   a. STV ............................................ 573
   b. DBS ............................................ 574
   c. Electronic Publishing ......................... 575

III. LESS IS MORE — THE INTERPLAY BETWEEN INDUSTRY CHANGES AND REGULATORY PHILOSOPHY .......... 576

A. Regulatory Developments Responsive to Rapidly Changing Characteristics of the Industry .......... 576

1. Institutional Changes ........................................ 577
   a. Rewriting the Communications Act ............. 577
   b. Federal Paperwork Policy ....................... 578
   c. Creating a Mass Media Bureau .................. 578
   d. Regulation Based on Economic Theory ........... 579

2. Implementation of the Marketplace Approach ............ 580
   a. Radio Deregulation ................................ 580
   b. LPTV ............................................. 581
   c. Cable Television Deregulation .................. 582
   d. Subscription Television Deregulation .......... 584
   e. Common Carrier Deregulation .................. 585
   f. Technical Standards ................................ 586
   g. Ownership Policies ............................... 588
      (1) Elimination of the Trafficking Rule ......... 588
      (2) Elimination of the “Top-Fifty” Policy ....... 589
The "new" communications era is, by now, almost a cliché. One cannot read the trade press without being bombarded with references to the "new video marketplace" and the "explosion" in entertainment and information systems. Beneath such catch phrases, however, lies a changing reality with profound implications for federal regulation of both new and existing technologies.

Perhaps the most significant development is the emergence of a more diversified and flexible video marketplace in which a wide variety of video services compete with television to deliver information and entertainment to the home. In this market, commercial television faces competition from cable television, subscription television (STV),1 multipoint distribution services (MDS),2 satellite master-antenna television (SMATV),3 home videocassette and videodisc systems, and, in the near future, low power television (LPTV)4 and direct broadcast satellites (DBS).5 This abundance, fueled by technological and regulatory developments, has, in turn, driven regulatory change by eroding the historic rationale for broadcast regulation, namely, the "inherent physical limitation" of the spectrum.6

By blurring the traditional distinctions between the broadcast, common

---

1. See infra discussion at notes 7-21 and accompanying text.
2. See infra discussion at notes 82-100 and accompanying text.
3. See infra discussion at notes 76-81 and accompanying text.
4. See infra discussion at notes 154-59 and accompanying text.
5. See infra discussion at notes 60-75 and accompanying text.
carrier and private radio services, technological developments have also precipitated a regulatory identity crisis. While comparable video services may be provided by MDS, cable, STV and conventional television, each delivery system is subject to a different set of regulatory standards. Similarly, a consistent regulatory approach has yet to be articulated for new technologies such as videotex, which may use broadcast frequencies, cable or telephone wire to deliver text and graphic information to television screens or computer terminals. Judging by its recent actions in the DBS, teletext and FM subcarrier proceedings, the Federal Communications Commission (FCC) appears to be moving toward a “functional” approach, whereby the function of the service and the manner in which it is offered to consumers, rather than the spectrum allocation, determines the regulatory classification.

This article describes the wide array of technologies that comprise the new video marketplace, and addresses the ways in which that diversity has eroded traditional justifications for media regulation. It notes the efforts of policymakers to replace the traditional “public trustee” model of regulation with a marketplace approach, and to develop a cohesive regulatory philosophy that both encourages technological development and responds to the rapidly changing characteristics of the communications industry. The article concludes with a discussion of the directions that “marketplace unregulation” is likely to take over the rest of the decade.

I. Innovations in Video Services

A. New Over-the-Air Video Services to the Home

1. Subscription Television (STV)

Subscription or over-the-air pay television is not, technically, a new entrant in the video marketplace. The technology dates back to 1950, when the first STV test was conducted in New York. STV is simply pay television transmitted over the air by local television stations that have chosen to offer subscription, rather than conventional advertiser-supported programming. To limit reception to subscribers, STV stations, most of them on the UHF band, broadcast a scrambled signal which must be “decoded” by a device attached to the subscriber’s television set. Because subscription television operates over-the-air on a specific allocated frequency, STV sta-

---

SUBSCRIPTION TELEVISION (STV)

stations have only one channel to program. The program fare is typically movies, entertainment specials and sporting events.

Although nonexperimental STV stations were permitted by 1961, none commenced operation until almost a decade later. During the past three

9. While decoders are generally not capable of translating signals from different operators, technological developments may make system compatibility a reality. A new decoder capable of bringing in more than one channel may soon be tested by three Dallas STV stations. See id.


11. See Subscription TV Serv., 90 F.C.C.2d 341, 342 (1982). See also Subscription Tel-
years, STV operations have more than tripled as a result of increased public interest, developments in pay television technology, and relaxation of regulations.\footnote{12} As of May 1982, twenty-seven stations were on the air in eighteen different markets, serving over 1.3 million subscribers.\footnote{13} This represents an increase of more than 50% in one year.

In a 1982 rulemaking proceeding, the Commission eliminated additional restrictions on STV activity.\footnote{14} Its action is expected to stimulate further growth of this video technology. In particular, the FCC deleted the so-called “complement-of-four” rule which restricted STV operation to those markets with at least four commercial television stations on the air.\footnote{15} This regulatory change made eligible for STV vacant UHF and VHF allocations in 74 markets, encompassing more than 70% of television households.\footnote{16}

Increasing judicial protection against unauthorized distribution of decoding devices is another factor encouraging the growth of STV.\footnote{17} The United States Courts of Appeals for the Sixth\footnote{18} and Ninth\footnote{19} Circuits have both held that STV transmissions are protected by section 605 of the Communications Act, which prohibits disclosure of the “existence, contents, substance, purport, effect, or meaning” of radio communications.\footnote{20} Those cases establish an implied right of action against unauthorized distributors of decoders on behalf of STV licensees. In addition, improvements have been made in securing STV systems against signal theft, especially in the area of “addressable” systems which use a central computer to “address” or activate individual decoders.\footnote{21}

2. Teletext

Teletext is a generic term for systems which transmit textual and graphic
A BROADCAST TELETEXT SYSTEM

information on a one-way basis to the home viewer. Teletext may be "narrowband," utilizing the vertical blanking interval (VBI) of the television signal, or "broadband," using an entire television channel. Broadband service would be delivered primarily by cable and MDS, while narrowband may be carried by cable, MDS, television stations (including low power), DBS and the subcarriers of FM stations.


23. The VBI is the black bar that appears on a television screen when the vertical hold needs adjusting. There are twenty-one lines in the VBI of which one is used to signal the end of a video frame and another is authorized to be used for a closed-captioned service for the hearing-impaired. All narrowband teletext systems require a terminal, wired to the display tube or built in, with a key pad and a decoder. Information is transmitted in a continuous cycle or loop. The user punches a page number into the terminal device, the terminal "grabs" the page as it flashes by and displays it on the screen. See S. Mahony, N. Demartino & R. Stengel, supra note 22, at 189-90.

24. An example of a teletext venture, which proposes to use FM subcarriers to transmit
Teletext offers substantial opportunities for diversifying television service into new areas and for improving the efficiency of spectrum usage. It has the potential to be used for a wide variety of services, including closed-captioning for the deaf, weather reports, news, comparative shopping prices, community bulletins, stock prices, movie listings, telephone directories, advertisements and airline schedules. It also offers interesting possibilities to enhance television viewing, such as permitting a viewer watching a baseball game to see a page of statistics on the batter. Such information can be transmitted as either an advertiser-supported service or a subscription service.

In March 1983, the Commission amended its rules to permit teletext transmissions by television stations. Favoring an “open environment” for teletext systems, the FCC declined to adopt technical standards for a single, nationwide system with compatibility for all teletext operations. Instead, television licensees can choose any technical system for transmitting data signals, subject to minimum standards designed to prevent interference with the broadcast service of the originating station, signals of other broadcast stations or those of nonbroadcast radio stations. This means that the three principal systems currently vying for acceptance—the British Ceefax system, the French Antiope, and the Canadian Telidon—could all be represented in a single television market with viewers required to invest in multiple decoders to receive all services.

Consistent with its current marketplace approach, the Commission authorized transmission of broadcast and nonbroadcast material, including non-display data. Licensees can also choose to operate services on a lease,

digital information, is that of National Public Radio in conjunction with the National Information Utilities Corp. See Shribman, Public Radio in Deal to Send Data Text, N.Y. Times, Apr. 20, 1982, at D4, col. 5. The data could range from computer programs and video games to news and shopping information, and would be “piggybacked” onto the network’s regular FM transmissions.

27. Transmission of teletext would initially be authorized on lines 14-18 and 20 of the VBI, with a phased-in approach allowing similar use of lines 10-13 in the future. The FCC voted to keep teletext off line 21—presently used for closed captioning for the hearing-impaired—for a period of 5 years. Teletext Transmission, 53 Rad. Reg. 2d (P & F) at 1328. See also Notice of Proposed Rulemaking (BC Docket No. 81-741), 46 Fed. Reg. 60,851, 60,854 (1981).
franchise or common carrier basis. In addition, the Commission declined to require mandatory carriage of teletext transmissions by cable systems, thus enabling cable operators to insert their own teletext services.

Although television stations were not permitted under prior rules to use the VBI for teletext transmissions, a number of stations had obtained temporary experimental authorizations. For example, the Commission authorized a one-year experimental teletext service over the broadcast facilities of Chicago Station WFLD-TV to test the economic and technical viability of a British teletext system in a major United States metropolitan area. The service provided written news, other information and a limited amount of advertising to approximately 100 subscribers equipped with special receivers and decoders.

A similar teletext experiment was conducted by KSL-TV, Salt Lake City, on lines 15 and 16 of the VBI. Its offerings included airline schedules, stock quotations, news, recipes and restaurant listings. Educational stations experimenting with teletext include WETA, Washington, D.C., which was authorized to conduct a pilot field test, and KCET, Los Angeles, which tested the French Antiope System. WKRC-TV, Cincinnati, using the British system, has been broadcasting Electra, a 100-page teletext magazine, since July 1982 under an experimental authorization from the FCC.

The national television networks have also experimented with teletext. CBS began teletext tests at KMOX-TV, St. Louis, in March 1979, and has been granted authority to conduct a similar experiment broadcasting an on-screen magazine called “Extravision” in Los Angeles over stations KNXT-TV and KCET. The network recently announced plans to launch Extravision through its affiliates as a national teletext service. The service would offer 100 pages of text, including airline schedules, movie and theater listings, weather and stock market reports, and would be supported

---


30. WFLD-TV also inaugurated “Night Owl,” a full channel text service which does not need a decoder and operates from the hours of midnight to 6 a.m. Neustadt, Skall & Hammer, supra note 22, at 345.

31. Other PBS stations involved in text experiments are KDIN-TV, Des Moines, Iowa; KFME, Fargo, N.D.; KMTF, Fresno, Cal.; WUFT, Gainesville, Fla.; KUON-TV, Lincoln, Neb.; WEDU, Tampa, Fla.; WGBH-TV, Boston, Mass.; WHA-TV, Madison, Wis.; WILL-TV, Urbana, Ill.; KPBS-TV, San Diego, Cal.; and WOUB-TV, Athens, Ohio. Testing the Waters, CableVision, Apr. 18, 1983, at 117.


by national and local advertising.\textsuperscript{34} NBC also plans to offer a 100-page nationwide advertiser-supported magazine to its affiliates.\textsuperscript{35}

Other media giants are similarly interested in teletext. Group W recently completed a six-month test at its San Francisco television station KPIX. The experiment, called "Direct-Vision," featured three magazines including a news portion, a classified advertising section, and a daily shopping guide. Group W worked with Sparks Newspapers on the classified sections to adapt newspaper ads to teletext.\textsuperscript{36} Satellite Network Delivery Corp., together with the Tribune Co., has proposed the first satellite-delivered teletext system, Business Teletext Network.\textsuperscript{37} The network would be distributed to more than 150 television stations, with access to 95% of the households in the United States.

Cable television systems have also offered teletext services without the need for FCC authorization. While most of these services have been of the passive variety in which users watch the text pass by, Atlanta television station WTBS, carried on many cable systems, plans to make a cable teletext service available in late 1983 that allows users to select what they want to see. The service is being offered by Keycom Electric Publishing, a joint venture of Field Enterprises (publisher of The Chicago Sun-Times), Honeywell, Inc., and Centel, a telephone company.\textsuperscript{38} In addition, Time, Inc. is testing an experimental teletext system in San Diego and Orlando which would be one of the first to require advertisers to pay for time.\textsuperscript{39} Time, Inc. is also planning to devote an entire channel to its teletext system, allowing it to have 5,000 pages in its magazine instead of 100. Time's system will have more computer capability than the others, allowing viewers to request more specific information.\textsuperscript{40}

3. \textit{Low Power Television (LPTV)}

On April 26, 1982, the FCC established the first new broadcast service in twenty years.\textsuperscript{41} The service, called low power television (LPTV), utilizes vacant UHF and VHF channels, and operates at power levels significantly below those of full-service television stations. Thousands of applications were filed during the pendency of the rulemaking, indicating the interest

\begin{thebibliography}{9}
\footnotesize

\bibitem{34} Id.
\bibitem{35} \textit{Testing the Waters}, \textit{CableVision}, Apr. 18, 1983, at 111; Pollack, \textit{supra} note 25.
\bibitem{36} \textit{Teletext by the Bay}, \textit{Broadcasting}, Jan. 10, 1983, at 98.
\bibitem{38} Pollack, \textit{supra} note 25.
\bibitem{40} Pollack, \textit{supra} note 25.
\bibitem{41} \textit{Low Power Television Serv.}, 51 Rad. Reg. 2d (P & F) 476 (1982).
\end{thebibliography}
in, and need for, the new service. The Commission was forced to bar further applications in order to permit processing of the backlog. Following this action approximately 2,000 additional applications were filed under exceptions to the freeze, increasing the total to 7,900 as of late 1982.

A sampling of the applications for low power television licenses reveals a wide diversity of proposals for religious, public affairs, sports, news and educational programming in addition to programming for blacks, Hispanics, other minority groups and women. The Citizen Television System, backed by Ralph Nader, filed applications for a consumer-oriented network. Neighborhood Television, affiliated with Sears & Roebuck, proposes a system of low power stations featuring programming with country-western and rural American themes. Community Television Network proposes to broadcast children's programming by day and subscription television at night. The United Auto Workers has also applied for a number of stations.

Like STV, low power television technology has been available since the 1950's. Low power transmitters, known as translators, were first authorized by the Commission in 1956 as a means of receiving and rebroadcasting television signals into regions that otherwise would have been bypassed. Licensees of television broadcast stations have also used

---

44. Where Things Stand, Broadcasting, Jan. 3, 1983, at 20, 22. By March 1983, the Commission had received approximately 12,000 applications. See LPTV Interests Call for Fast Track Review of Applications, Communications Daily, Mar. 16, 1983, at 2. The Commission exempted from the freeze applications for communities that receive fewer than two full-service TV signals, and applications seeking to change frequency due to land-mobile use. Upon adopting the April 1982 Report and Order, the Commission left the freeze in place for all LPTV applications except those where (1) the proposed transmitter site is more than 55.5 miles from any FCC-ranked market; or (2) a change of frequency is required due to land-mobile use or interference with a full-service station. Low Power Television Serv., 51 Rad. Reg. 2d (P & F) at 1275, 1277.
46. New Technologies, supra note 45.
47. Id.
48. Id.
49. Id.
50. Report and Order (Docket No. 11611), 13 Rad. Reg. (P & F) 1561 (1956). See also Report and Order (Docket No. 12567), 17 Rad. Reg. (P & F) 1735 (1960) (increased maximum power output of UHF translator stations from 10 watts to 100 watts); Report and
translators to reach unserved areas within their Grade B contours\textsuperscript{51} and, in some instances, to carry their signal beyond the Grade B contour. Translator operators were forbidden, however, to originate their own programming.\textsuperscript{52}

Under the new LPTV rules, stations can originate live programming from a local studio, broadcast pre-recorded video tapes or movies, and broadcast programs received from a distant source, such as a satellite.\textsuperscript{53} The rules allow low power stations to carry advertising or charge subscription fees.\textsuperscript{54} The stations would operate at power levels of only 10 to 1,000 watts, and be capable of covering, at most, a fifteen to twenty-mile area.\textsuperscript{55} While the actual cost of a low power television station varies widely, depending on the proposed operation, a basic version may cost only $50,000 to build, compared with $1 million or more for a conventional television station, thus enabling those with relatively little capital to become broadcasters.\textsuperscript{56} Existing translators may commence program origination merely by filing a notification with the Commission.\textsuperscript{57}

As of January 1983, the FCC had awarded 178 construction permits and 150 licenses for low power television stations—the vast majority located in Alaska.\textsuperscript{58} Implementation of computer processing, and a lottery procedure for selecting applicants,\textsuperscript{59} could drastically increase the pace at which licenses are granted.

4. Direct Broadcast Satellites (DBS)


\textsuperscript{51} See 47 C.F.R. § 74.732 (1982).
\textsuperscript{52} A limited exception was made for UHF translators to originate, for 30 seconds an hour, slide announcements soliciting or acknowledging local public financial support. Slide and Voice Announcements, 54 F.C.C.2d 421 (1975). See also Television Broadcast Translator Station Rules, 13 F.C.C.2d 305 (1968).
\textsuperscript{53} 47 C.F.R. § 74.731 (1982).
\textsuperscript{54} Id.
\textsuperscript{55} 47 C.F.R. § 74.735 (1982); Warner & Landro, supra note 45.
\textsuperscript{57} 47 C.F.R. § 74.732(c) (1982). See also Low Power Television Serv., 51 Rad. Reg. 2d (P & F) at 512.
(DBS) Service, a regulatory development that could make available as many as forty additional channels of video programming nationwide. DBS is a radio-communication service in which signals from earth are re-transmitted by high power, geostationary satellites for direct reception by small, relatively inexpensive earth terminals. Direct broadcast satellites, which were allocated spectrum in the twelve GHz band for downlinks, and in the seventeen GHz band for uplinks, are capable of transmitting a sig-

60. Direct Broadcast Satellites, 90 F.C.C.2d 676 (1982), appeal pending sub nom. National Ass'n of Broadcasters v. FCC, Case No. 82-2233 (D.C. Cir.). See generally Federal Communications Commission, Office of Plans and Policy, Policies for Regulation of Direct Broadcast Satellites (Sept. 1980) [hereinafter cited as DBS Report]. DBS is distinguished from current domestic satellite operations which broadcast to known, fixed locations and generally use the C-band (4-6 GHz).
nal up to forty times more powerful than those of current communications satellites. As a result, they send a television beam which can be picked up by a two-foot dish, typically mounted on the rooftops of subscribers. Since the antenna bandwidth is narrower than conventional ones, up to four DBS satellites would be required to reach the entire country.

After establishing interim rules for the DBS service, the FCC granted conditional construction permits to eight applicants whose submissions contained diverse proposals. The Direct Broadcast Satellite Corporation proposes to provide transmission capability for hire as a common carrier. RCA and Western Union plan to make DBS capacity available to others for program distribution, but would retain one or two channels for their own use and would maintain greater control over their clients than a common carrier. Three of the systems (CBS, Graphic Scanning, and Satellite Television Corporation, a subsidiary of Comsat) will be supported in whole, or in part, by audience subscription.

When fully operational, each system will provide as many as three channels of programming to each of the nation's time zones. While most of this programming will be conventional television and pay-cable fare, the proposals include some technically innovative services, such as high definition television (HDTV), teletext, stereophonic sound and dual-language sound tracks. The benefits of DBS will include service to remote areas that receive no over-the-air television, the availability of additional channels of service throughout the country, and the development of more specialized programming.

The construction permits are contingent upon the outcome of the 1983 Region 2 Administrative Radio Conference which will determine the assignment of frequencies and orbital positions. The applicants thus risk the...
possibility that insufficient spectrum or orbital positions may ultimately be available to accommodate all the systems. The Commission believed, however, that authorization of interim DBS systems would permit earlier implementation of the service due to the long lead times required for satellite construction.72

In addition, the applicants face competition from “back door,” or quasi-DBS programming services, such as those proposed by United Satellite Communications, Inc. (USCI), backed by Prudential Insurance Co., and publisher Rupert Murdoch’s Inter-American Satellite Television Network (IAST), which could be operational by late 1983. The direct-to-home satellite TV service proposed by those companies would utilize Ku-band satellites, rather than the high-power direct broadcast satellites operating in the DBS band.73 Recent technological developments have made possible the use of small home receiving dishes in connection with satellites operating in this fixed satellite band.74 The service could also deliver programming to multiple-family dwellings, hotels, cable TV systems, MDS, LPTV stations and SMATV systems. Both USCI and IAST ultimately plan to offer five channels of programming to the entire nation.75

5. Satellite Master Antenna Television (SMATV)

With satellite-fed master antenna television (SMATV), an operator simply puts an earth station (satellite dish or antenna) on top of an apartment building or complex of buildings in order to obtain satellite programming.76 The programming is delivered from the earth station to individual homes through coaxial cable. SMATV, also referred to as “mini-cable” or

---

72. Id. at 683-84.
74. The KU-band (11.7-12.2 GHz) does not require a large (12 foot) dish, so individuals would be able to use smaller (3 to 5 feet diameter) and less expensive dishes. The service would also be less susceptible to disturbance by microwave signals. Prudential Places a Bet on DBS, Broadcasting, Feb. 7, 1983, at 31-32.
75. Id.; IAST is the Latest Entry in the DBS Equation, supra note 73, at 40.
76. See generally National Ass’n of Broadcasters, SMATV: Strategic Opportunities in Private Cable (Nov. 1982).
“private cable,” is economically practical today only in mass dwellings,

77. SMATV systems, however, are generally exempt from reporting and other requirements applicable to cable television systems if they are confined to subscribers “in one or
where installation costs—about $80,000 for a 400-unit apartment build-
ing—can be absorbed by a large number of apartment units.\textsuperscript{78}

Two developments have spurred the growth of SMATV. First, technol-
ological advancements led to a precipitous drop in the cost of earth station
receivers, making such facilities practical for a wider range of users and
purposes.\textsuperscript{79} As a result, the FCC in 1979 deregulated receive-only domes-
tic earth stations, and dispensed with licensing requirements for these fa-
cilities.\textsuperscript{80} Second, since the launching of HBO in 1975, numerous program
networks have materialized which use satellite delivery. The availability
of "superstations," such as WTBS in Atlanta, as well as specialized news,
cultural, sports, and religious programming has stimulated consumer
demand.

Another development which could further spur growth of the service is
the Commission's recent, and unprecedented, grant of a microwave license
in the Cable Television Relay Service to an SMATV operator.\textsuperscript{81} The li-
cense will enable the operator to link a cluster of apartment buildings in
Dallas, Texas, in order to provide a 98-channel bi-directional cable television
type service to residents of the complex.

6. \textit{Multipoint Distribution Service (MDS)}

In 1974, the FCC allocated two channels\textsuperscript{82} to MDS for the purpose of
providing a common carrier microwave service for closed circuit television
or nonvideo transmissions.\textsuperscript{83} The MDS station transmits omni-direction-
more multiple unit dwellings under common ownership, control or management." 47
C.F.R. § 76.5(a) (1982).

\textsuperscript{78} The development of SMATV has troubled cable companies since it is faster and
cheaper to install in urban areas. \textit{See The Pack of Competitors Cable Must Keep at Bay},

\textsuperscript{79} Reregulation of Receive-Only Domestic Earth Stations, 74 F.C.C.2d 205, 207
(1979).

\textsuperscript{80} \textit{Id}. An equally significant decision in promoting satellite delivery of programming
services was the FCC's 1972 "open skies" decision which opened the domestic communic-
aton satellite field to free competitive entry. \textit{Domestic Communications-Satellite Facilities,
35 F.C.C.2d 844 (1972), aff'd sub nom., Network Project v. FCC, 511 F.2d 786 (D.C. Cir.
1975)}. The FCC recently authorized the construction and launch of 19 new communications
satellites, and, to accommodate them, adopted a plan to reduce the space between satellites
in geostationary orbit. \textit{See FCC Opens Up Another Slice of Sky}, \textit{Broadcasting}, May 2,

\textsuperscript{81} Cable Dallas, Inc., 53 Rad. Reg. 2d (P & F) 651 (1983). \textit{See also} Leddy, \textit{Microwave

\textsuperscript{82} Although two channels are available throughout the United States to MDS, only in
50 of the larger metropolitan areas are both channels six MHz wide, and, therefore, ade-
quate for transmission of standard television signals. Notice of Inquiry and Proposed

\textsuperscript{83} Multipoint Distribution Serv., 45 F.C.C.2d 616 (1974).
ally from a fixed location to multiple fixed receivers with directive antennas. Although the FCC originally contemplated that MDS would be used to provide educational, business, and governmental services, entertainment programming emerged as its predominant function.

Since the MDS licensee is a common carrier, it cannot provide programming itself, but leases transmission time to a pay TV entrepreneur, such as Home Box Office or Showtime, who obtains the rights to distribute programming in an area and solicits customers. As a common carrier, the MDS operator sets rates pursuant to a tariff, and must offer services on a first come-first served basis.

MDS primarily serves high-rise, multi-unit structures such as apartment buildings and hotels, because of the limited distribution range of the transmitter (twenty-five miles), the need for line-of-sight transmission to reception antennas, and the cost of installing the special receiving antenna. It is used increasingly, however, in private homes and to distribute entertainment programming to cable television systems. Through MDS, subscribers are able to receive programming similar to that carried on pay cable channels without the need for cable wiring. In urban areas particularly, MDS can provide a faster and, in many cases, cheaper method of establishing broadband channels than can cable, which has franchising requirements and extended construction periods. MDS has an advantage over distribution modes such as STV and LPTV, in that it can expand the range of video programming without utilizing broadcast frequencies.

Several recent developments could potentially expand the uses of MDS. In May 1983, the Commission adopted a proposal to increase the number of channels available for MDS use by giving the service access to eight channels in the 2500 to 2690 MHz band which were allocated to the Instructional Television Fixed Service (ITFS). In so doing, the Commission essentially adopted the proposal of Microband Corporation of America, submitted in that proceeding, to expand the capacity of all MDS stations from one channel to five. Proposal of Microband Corporation of America (Gen. Docket No. 80-112) (Feb. 10, 1982) [hereinafter cited as Proposal of Microband].

---

84. Id. at 617.
86. Id. at 29,325-26.
88. Multipoint Distribution Serv., 45 F.C.C.2d at 617.
89. See New Technologies, supra note 45, at 6.
90. Id.
91. Id.
Commission is considering new MDS technical standards, which could facilitate, among other things, closer spacing of stations using the same frequency.\textsuperscript{93}

The reallocation of channels will enable two competitive MDS operators

\textsuperscript{93} Notice of Inquiry and Proposed Rulemaking (Gen. Docket No. 80-113), 45 Fed. Reg. 29,350 (May 2, 1980). In another proceeding, the Commission is exploring ways (i.e.,
in each market to offer multichannel service, consistent with the operations of religious and educational groups which currently use the affected ITFS frequencies. By reallocating additional channels to MDS, the Commission has opened the door for services such as the five-city multichannel over-the-air pay video service proposed in August 1982 by Contemporary Communications Corp.94 CCC had proposed to operate on idle ITFS channels in New York, Philadelphia, Chicago, St. Louis and Los Angeles95 with programming for the service, to be known as Multiple Channel System (MCS), to be provided by CBS as part of a market research test to determine the initial intermixture of programming and pricing in each market.96 While pay video programming services were to be the mainstay, future services such as videotex, teletext, video games, electronic banking and shopping, HDTV, local telephone access services, and high speed data transmission were also contemplated.97

The Commission's decision would also permit innovations such as the "Urbanet" service proposed by Microband Corporation of America, the largest provider of MDS in the country.98 "Urbanet" would be an over-the-air "wireless cable" system, making available pay-TV programming and other offerings. Two-way capability is also envisioned through telephone-based return circuits.99

Although the reassignment of ITFS frequencies had been opposed by various educational and religious interests which operate ITFS stations,
the Commission noted that, nationwide, ITFS spectrum remained idle. To accommodate both ITFS and MDS users, the Commission grandfathered existing ITFS licensees and authorized such licensees to share or lease their excess channel capacity with MDS operators.

7. **Private Operational-Fixed Microwave Service (OFS)**

In 1981, the Commission authorized use of business radio facilities in the private operational-fixed microwave service (OFS) for transmission of video programming to hotels and other commercial facilities. Prior to that decision, OFS facilities were used to transmit information and instructions related to the main operations of noncommunications businesses. In adopting the rule changes, the Commission opened a distribution path between the licensee and its customers for transmission of the licensee’s own products, including video programming. The FCC foresaw a variety of potential uses for private distribution systems including video material distribution, voice, and, in the future, high speed data services distribution. In response to the Commission’s action, and reflecting interest in the new service, approximately 1,400 applications were filed by sixty different entities seeking to provide video entertainment services to hotels and other locations.

Upon reconsideration of its 1981 decision, in May 1983, the Commission drastically expanded the potential uses of OFS facilities, and made that service a viable means of delivering video entertainment to the home. In particular, the Commission authorized the use of frequencies above 21.2 GHz for the delivery, by OFS licensees, of their own products or services to any receiving location, including hotels, apartment house master antenna systems, and private residences. After August 1, 1985, the Com-

---

101. Private operational-fixed microwave service (OFS) is identical to MDS from an engineering standpoint. Private radio regulations, however, traditionally restricted the use of business microwave facilities to transmission among different parts of the same company. See Transmitting Program Material to Hotels, 39 F.C.C.2d at 532-33.
104. Use of Private Microwave Frequencies, 86 F.C.C.2d at 309.
105. Omnidirectional and other point-to-multipoint operations were restricted to the three 6 GHz channels in the 2.5 GHz band and point-to-point operations to the band above 13 GHz. See 47 C.F.R. § 94.61 (1982). See also 86 F.C.C.2d at 308.
107. Id. at ¶ 30. While the 21 GHz band is subject to attenuation under certain atmospheric conditions, the Commission obviously hopes to encourage technological change to improve reception—an instance where regulatory developments may spur technological innovations.
mission will also authorize private video entertainment systems in the 2.5 MHz band.\textsuperscript{108}

The Commission has thus eliminated the home video programming restriction upon OFS use, putting that service on a comparable footing with MDS as a video entertainment distribution system.\textsuperscript{109} It also appears that the Commission has lifted the restriction upon uses of OFS frequencies to transmit program material to broadcast stations, cable systems, MDS systems, and SMATV systems, at least in the bands above 21,200 MHz.\textsuperscript{110} Moreover, by allocating frequencies above 21.2 GHz for OFS, the Commission indicated that many more entertainment systems could be accommodated than possible at 2.5 GHz, making multiple channel use a future possibility.\textsuperscript{111}

OFS licensees will still be required to have an ownership or contractual interest in the information or services they distribute.\textsuperscript{112} The service could not, therefore, be used to sell transmission capability to others.\textsuperscript{113}

\begin{center}
\textbf{CABLE TV SYSTEM}
\end{center}

\begin{itemize}
\item 108. \textit{Id.} at ¶ 29.
\item 109. \textit{Id.} at ¶ 28.
\item 110. \textit{Id.} at App. ¶ 2.
\item 111. \textit{Id.} at ¶ 28.
\item 112. \textit{See} 47 CFR § 94.9(a)(1) (1982). \textit{See also} Use of Private Microwave Frequencies, 86 F.C.C.2d at 304, 309.
\item 113. \textit{See} 47 CFR § 94.9(b)(1) (1982).
\end{itemize}
B. New Closed Transmission Video Services to the Home

1. Cable Television and Interactive Cable Television

Cable, as distinguished from over-the-air video services, relies upon a wired network. The wire or coaxial cable is strung along utility poles or through underground telephone ducts and is connected to the subscriber's residence. Cable systems are experiencing an explosive growth rate, with more than 35% of American television households presently subscribing to cable television. Industry analysts estimate that, by 1985, cable will have penetrated 35% to 50% of United States television households. By 1990, from forty-five to sixty-three million subscribers—one-half to two-thirds of the total United States television households—are expected to subscribe to cable.

Technological advances are primarily responsible for cable's growth. While older cable systems typically provided twelve channels, the development of converters in the 1960's increased the capacity of CATV systems to twenty channels. Refinements in the converter have made possible the provision of fifty-two channels on a single cable line. By using two lines, cable systems can offer 104 channels of programming. Other advances, such as General Electric's Comband technique whereby two video program services can be transmitted over a single cable television channel through the use of analog compression, promise to further expand cable's already abundant channel capacity. Recent proposals, for example, envision 200 or more channels.

This abundant channel capacity, in turn, has had an impact on software, spawning new satellite interconnected cable networks, such as the Entertainment and Sports Programming Network (ESPN), Cable News Network (CNN), and Nickelodeon (children's programming). In addition, the excess channel capacity of local cable television systems has been utilized by third parties, such as newspapers and broadcasters, on a leased or joint venture basis, to deliver program or information services to subscribers. By the end of 1981, sixty-nine newspapers had arranged to provide

---

114. See, e.g., Cable Contrast, Broadcasting, Sept. 13, 1982, at 84.
118. Id.
119. See infra notes 168-70 and accompanying text.
121. See New Technologies, supra note 45, at 3, 32-35.
video, audio, or text services on local cable systems.122

More recently, two-way or interactive cable television systems have been introduced.123 Warner-Amex Cable pioneered interactive cable with its “Qube” system in 1977, and other operators have since developed their own versions.124 Interactive technology permits the cable system to poll its viewers on such matters as the winner of the next college football game, a presidential press conference, and political issues. Viewers have played game shows, “gonged” local talent off the air, ordered library books, and indicated their solutions to moral dilemmas dramatized by actors.125 Subscribers also have been asked to offer their opinions on President Carter’s 1979 energy speech and Ralph Nader’s petition to change children’s advertising.126

Two-way capacity will also simplify “pay-per-view” programming, that now requires advance advertising and distribution of special decoders to unscramble the signal. With interactive cable, the viewer registers a preference on the console, the computer supplies the signal, and the viewer is automatically billed.

These technological developments have been accompanied by the relaxation of federal regulation during the past decade. The deregulatory trend began with the Supreme Court’s 1979 Midwest Video decision,127 circumscribing the Commission’s jurisdiction over cable television, and culminated with the elimination, in 1981, of virtually all restrictions upon the number of distant station signals that cable systems may import, and removal of “syndicated exclusivity” rules that required cable systems to “black out” some programs.128 The extent of cable regulation by local franchising authorities may also be relaxed if S.66 (the Cable Telecommunications Act of 1983), which was approved by the U.S. Senate, is enacted.

2. Cable Interconnect Systems

Recently, in an effort to attract advertising dollars, entrepreneurs have


123. Two-way cable uses two wires so that information can flow in both directions. The wires are hooked up to a large central computer that tabulates viewer responses by checking each home in the system every few seconds. Viewers can participate in programming by punching buttons on a hand-held console. *1983 Field Guide*, supra note 7, at 10.

124. *Id.* See also Qube Anniversary, *CABLEVISION*, Dec. 13, 1982, at 27.


126. *Id.*


been experimenting with "interconnects," where a common entity represents a number of cable systems in the sale of advertising time. Interconnects effectively transform numerous, discrete cable systems into a mini-network by tying together neighboring systems.

There are two basic types of interconnects. The hard or physical interconnects link a number of systems together by a microwave radio network or by coaxial cable. The soft or simulated interconnects do not actually establish electrical connection among the participating systems. Instead, they involve agreements allowing a common entity to sell advertising time on participating cable systems as a single network.

Hard interconnect systems have made the greatest gains. The first hard interconnect was the Bay Area Interconnect, linking 475,000 subscribers in the San Francisco area. Gill Cable, the San Jose cable operator that conceived the idea, receives satellite programming, inserts commercials supplied by national and regional advertisers, and sends the mixture over a microwave network to thirty-one other systems. Other hard cable interconnects, based upon the Bay Area model, include Harron Cable, which is presently building a four-channel microwave network in the Philadelphia market, Cox Cable, which distributes KCOX, a programming service, via a one-channel microwave to two other systems in San Diego County, and Heritage Communications, a one-channel network interconnecting twenty-one systems in Iowa.

Soft interconnect systems, although not as numerous, also exist in different regions of the country. Such interconnects include New England Cable Rep, which represents twenty systems with 500,000 subscribers in an area stretching from Maine to Connecticut, and Eastman Cable Rep, which operates on a national level. While the soft interconnect cannot transmit commercials to appear on multiple systems simultaneously, it

130. Id.
131. Id. at 60.
132. Id.
133. Id.
134. Id. The Bay Area, Cox, Heritage and Harron intercepts are controlled by one company that induces systems to affiliate through various tactics such as offering a nickel per subscriber and a share of operating profits, or by charging for supplying local programming. In contrast, Centel Videopath Network, a two-way multiple channel microwave network presently under construction in the Chicago area, would operate as a common carrier. To send commercials over the network, advertisers would have to pay a flat fee, regulated by the FCC. Id.
135. Id.
136. Id.
Catholic University Law Review

3. Common Carrier Wireline or Fiber Optic Services

Fiber optics, a relatively recent technological development, promise to revolutionize delivery of video signals to the home. Unlike conventional wire, fiber optics utilize digital pulses of light sent through flexible strands of glass. Since light waves are higher on the spectrum than radio waves, a much greater amount of information can be transmitted through an optical fiber than through a conventional wire. Fiber optics are also much less expensive to produce and are free from signal interference.

The trade press has reported a number of proposals involving fiber optic cable. The telephone company in some places has begun replacing conventional telephone lines with fiber optics; coverage of the 1984 Olympic Games, for example, will be by means of fiber optic lines supplied by Pacific Telephone & Telegraph Co. and GTE of California. Fisher Communications recently announced plans to build the world's largest fiber optic cable system, involving 120 miles of fiber optic plant for United Cable Television's 120 channel system in Alameda, California. MCI Communications Corp. plans to install fiber optic data and communications lines along railroad tracks in the Washington-New York corridor. The Port Authority of New York and New Jersey has proposed a "Teleport" on Staten Island, with twelve to seventeen earth stations linked by fiber optic cable to the World Trade Center, and other points in New York and New Jersey.

4. Electronic Publishing Services

Electronic publishing is the generic term for a variety of systems that disseminate text and graphic information for display on television screens or terminals. When the textual information is transmitted one way, it is called teletext. Interactive systems that utilize telephone or two-way

---

137. Fiber optics would permit the telephone company, for example, to compete with cable by carrying hundreds of video signals into or out of the home through a single wire.
140. Id.
143. See supra notes 22-40 and accompanying text. As noted, teletext may be transmitted over the VBI of television stations, as part of a cable television signal or by other means.
cable lines are called videotex. In addition to information retrieval, videotex offers the possibility of conducting transactions, such as shopping and banking from the home. Electronic mail is also a potential use.

Several videotex-type services are now available. "The Source" and "CompuServe," make available national data bases to home computers via telephone lines. The Source plans to offer over 2,000 programs, including text editing, income tax preparation packages, games, airline ticketing services, UPI News Wire Service, and electronic mail. CompuServe, operating in Columbus, Ohio, has enlisted eleven newspapers to experiment with electronic news and classified advertising. Viewtron, an interactive system operating in Coral Gables, Florida, transmits over telephone lines information generated by Knight-Ridder newspapers. Subscribers can retrieve news, weather, sports, product ratings, and classified ads, as well as order airline and theater tickets over the system.

Another electronic publishing venture, Newsnet, will transmit over telephone lines the contents of 100 newsletters to the personal computers of

**ELECTRONIC PUBLISHING SERVICES OR VIDEOTEX**

---

144. The terminology in this area is unsettled. See Neustadt, Skall & Hammer, supra note 22, at 331.


146. Neustadt, Skall & Hammer, supra note 22, at 342.

147. Id. at 342 n.34; Testing the Waters, CABLEVISION, Apr. 18, 1983, at 110.
subscribers. CBS and AT&T conducted a joint videotex experiment involving 100 households in Ridgewood, New Jersey, that offered a broad range of local and national consumer information and transaction services. CBS was responsible for the information content and AT&T provided computer facilities and home terminals.

The telephone network is currently the transmission vehicle for videotex, since most cable systems lack two-way capacity. There are some exceptions, most notably, the two-way Shopping Channel, available in markets served by the Times Mirror cable systems, and Warner-Amex's Qube operations in Columbus, Cincinnati, Pittsburgh, and Dallas. Cox Cable is testing a system in San Diego, called Indax, that uses two cable channels—for upstream and downstream signals—to provide information, electronic mail, and home banking and shopping to subscribers.

C. Recorded Video Services for Home Use

1. Videocassette Recorders and Videodisc Players

Any discussion of the new video marketplace must include videocassette recorders (VCRs) and videodisc players (VDPs), as another programming and distribution development that has altered the traditional pattern of television service. VCRs are not revolutionary from a technical standpoint, having been developed in the early 1950s. Fundamentally the same as audio recording devices, VCRs are capable of playing prerecorded tape cassettes, and of recording and playing back material from television or other video sources, including an attached video camera. But technical


The Newsnet concept is novel in that most other database operators, such as Lockheed's Dialog and Mead Data's Nexus, utilize large computer-based libraries of data that give subscribers access to encyclopedic collections of demographic, industrial, econometric and other specialized information. In contrast, Newsnet's emphasis will be on newsworthy information. Unlike traditional wire services such as AP and UPI, however, the information will be organized by subject, for easy retrieval by specialized subscribers.


150. See Neustadt, Skall & Hammer, supra note 22, at 369.


152. Downstream signals are those that run from an outside programmer or service to the home. Upstream signals run from the home to the outside source.


154. Two incompatible VCR formats, Beta and VHS, presently coexist. Although the
problems, cost and unwieldy size relegated VCRs to institutional use until the introduction of Sony's Betamax recorder in 1975. Since that time, more than five million Americans have purchased VCRs for home use.

Videocassettes have had a twofold impact on the video marketplace. First, the "time variance" capability of VCRs permits viewers to tape television or cable shows for viewing at more convenient times. Time shift viewing liberates viewers from the programmer's rigid schedules, and, for this reason, expands the audience for television and cable programming.

Second, VCRs make available a wide range of specialized, nonbroadcast programming. Users can purchase or lease video material for personal use to supplement the video information that is otherwise available though broadcast or cable service.

Videodisc players are a more recent development, utilizing phonograph-type "records" rather than tape to store video information. Videodisc players also allow the release of video information to the home market, but presently cannot record material from other sources. The advantage of the VDP is its ability to provide stop action, slow motion and random access to individually addressed frames, thus providing a capability to display text and still photographs. These capabilities suggest that the primary use may be in an educational setting or for occupational training.

2. Video Game Cartridges and Systems

Video games are not directly competitive with broadcast and cable television as are VCRs and VDPs which offer similar entertainment. They are significant, however, in that they use the television screen as a display device, permitting viewers to control the images on their screen. Video games are present in 25% of the nation's television homes, and it is expected that this percentage will double by 1985.

Two systems offer essentially the same features, the VHS system's longer recording time has assured its market dominance.


156. Id.


158. See Network Inquiry Special Staff, supra note 155.

159. There are two incompatible videodisc systems with slightly different capabilities. The phonograph-style player developed by RCA uses a stylus and grooved discs. Philips and Pioneer have introduced a more expensive system which uses a low-power laser to "read" the disc. See 1983 Field Guide, supra, note 7, at 49.

Video games are also melding with other new technologies. Several cable operators have signed with The Games Network, a company that distributes games licensed from independent computer programmers for display on a video channel.161 Play Cable, a joint venture between Mattel, Inc. and General Instrument, offers subscribers of about fifteen cable systems twenty-four hour access to all Mattel Intellevision games.162 Teletext services, provided by Time, Inc. over cable systems in San Diego, Cal. and Clearwater, Fla., have included educational video games among their offerings.163 Other teletext experiments, including those conducted by the Times Mirror in Mission Viejo, and Palos Verdes, Cal., indicate that games are one of the service's most popular features.164

3. VCR Applications

Several interesting proposals combine VCR and broadcast technologies to provide over-the-air taping. Music, movies, video games and other forms of entertainment or information can be electronically transmitted to homes and recorded by machines automatically activated to receive the transmission. A new word, "telesoftware," has been coined to describe such electronic distribution of programming.165 Several entities are planning telesoftware applications. ABC, for example, plans to launch a venture, recently renamed "Tele1st," that will broadcast pay programming in scrambled form over its owned stations and affiliates during the early morning hours.166 ECO, Inc., an electronics company in Santa Ana, Cal.,

---

161. A 100 home test, for example, was conducted at Group W's Fullerton, Cal. system. See CableScope CABLEVISION, Dec. 6, 1982, at 9; CABLEVISION PLUS, Jan. 10, 1983, at 6.
162. Its signals are sent over vacant portions of the FM radio spectrum. Crossfire!, CABLEVISION PLUS, Jan. 10, 1983, at 5-6.
163. See Pace, supra note 39.
166. Subscribers would set their VCRs to record the scrambled signal. Special decoders attached to the VCRs would unscramble the signal for playback.
**VCR APPLICATIONS**

*SUBSCRIBER INSERTS CASSETTE*
*OVERNIGHT DELIVERY TIME*
*PRESET START*
*SCRAMBLED PROGRAM RECORDED*
*KEY SENT AND STORED AFTER PROGRAM DELIVERY*
intends to broadcast magazines, newspapers or catalogues over the air or by cable for taping on a VCR, and National Public Radio, among others, has proposed to distribute video games and other computer software to automatic recording machines.\textsuperscript{167}

D. Technological and Regulatory Developments That Could Permit More Efficient Spectrum Use to Produce More Delivery System Opportunities

1. General Electric Company's Two-for-One Comband System

The General Electric Company Television Division, in November 1982, announced the development of Comband, an analog compression system intended to allow transmission of two video program services over a single cable television channel.\textsuperscript{168} As reported in the trade press, "[b]y installing a Comband encoder at the headend and Comband converters in subscribers' homes . . . the cable operator can quickly and relatively inexpensively double the capacity of his own system."\textsuperscript{169} Comband converters are estimated to cost two hundred dollars.

Comband will be marketed initially for the cable television industry, but GE indicates that the system will have future applications to over-the-air services such as television, STV, LPTV, MDS, and satellite and microwave links.\textsuperscript{170} If successful, this system could permit an inexpensive doubling of services provided over the six MHz allocations to broadcast, STV, LPTV, and MDS licensees.

2. Conversion From Analog to Digital Transmission Techniques

Television signals are normally transmitted in analog "wave" forms moving across the six MHz frequency range.\textsuperscript{171} AT&T, ITT, and others are developing digital transmission techniques that convert audio and video signals into "on and off" impulses.\textsuperscript{172} Digital transmission permits a number of different services to be transmitted over the six MHz allocations through use of multiplexing techniques.\textsuperscript{173} The principal disadvantages of digital systems are the high cost of conversion equipment, and the transition costs of moving from an analog to a digital approach for existing

\begin{footnotes}
\item 167. \textit{Id.}
\item 169. \textit{Id.}
\item 170. \textit{Id.}
\item 171. For a general discussion of the nature of radio waves, see S. Head, \textsc{Broadcasting in America} 25-34 (3d ed. 1976).
\item 172. For a general discussion of digital transmission techniques, see \textit{id.} at 25-27.
\item 173. "Two or more independent signals transmitted simultaneously in the same channel are said to be multiplexed." \textit{Id.} at 35.
\end{footnotes}
broadcast communications services. Nonetheless, if sufficient demand for new transmission delivery systems exists, such digital multiplexing techniques will provide another method of “squeezing” more uses out of the same frequency allocation.

3. FM Multiplex Subcarriers

On March 31, 1983, the FCC eliminated virtually all technical and non-technical restrictions upon uses of FM subcarrier frequencies. As a result of the Commission’s decision, FM radio broadcasters are now permitted to use their subcarriers to transmit material of either a broadcast or nonbroadcast nature twenty-four hours a day, irrespective of main channel operation. The Commission action facilitates multiple subcarrier services by expanding the technical parameters of the FM sideband, thereby providing two or more audio subcarriers, or several data channels.

Use of FM subcarriers was previously restricted to transmissions of a broadcast nature, such as background music and specialized information services. The rule amendments will permit a wide variety of uses, including slow scan video services, data transmission, local paging and dispatching services, municipal traffic light and sign control, page transmission to nearby printing plants, and electronic mail delivery.

4. Shared Use of Broadcast Auxiliary Stations

The Commission recently amended its rules to permit licensees of television auxiliary stations to use those facilities to transmit, on a profitmaking basis, broadcast or nonbroadcast material to other entities. The only restriction is that the use must be secondary to the primary purpose of the spectrum allocation, which is transmission of live program feeds to the associated television station. The Commission’s decision enables licensees to use excess capacity for nonbroadcast purposes, as well as to transmit program material to cable television systems and other broadcast stations. The licensee may also, through multiplex techniques, transmit simultaneously two video channels, with one feeding the licensee’s associated broadcast station while the second could be used for alternative purposes.

In giving broadcasters wide latitude to use excess capacity on their

174. FM Subsidiary Communication Authorizations, 53 Rad. Reg. 2d (P & F) 1519 (1983). A multiplex subcarrier frequency is adjacent to the main channel frequency. At the subscriber’s end, special receivers are designed to receive the subcarrier signal that is multiplexed, or mixed into, the main signal.
broadcast auxiliary facilities, the Commission intended to foster more efficient use of the spectrum, and to encourage the development of spectrum-efficient technologies such as channel compression.\footnote{177} It stated, "[f]orcing auxiliary stations to remain idle when legitimate demands for frequencies exist is precisely the situation that we are attempting to avoid."\footnote{178}

II. THE IMPENDING REGULATORY IDENTITY CRISIS

A. Loss of Scarcity as a Regulatory Rationale

A fundamental tenet of broadcast regulation is the scarcity of broadcast frequencies. Justice Frankfurter observed in 1943: "the radio spectrum simply is not large enough to accommodate everybody."\footnote{179} Government regulation, therefore, has been deemed essential to prevent "etheric bedlam."\footnote{180} In addition, the "inherent physical limitation"\footnote{181} of spectrum has justified the imposition of certain public service obligations upon broadcasters in return for the "free and exclusive use of a limited and valuable part of the public domain . . . ."\footnote{182}

Apart from natural limitations, the Commission's television allocation scheme has perpetuated spectrum scarcity.\footnote{183} The table of assignments adopted in 1952\footnote{184} confined television to the VHF and UHF spectrum,\footnote{185} even though other portions of the spectrum could have been used to transmit video and audio signals to the home. Moreover, due to the nature of the spectrum, not all of the commercial television channels allocated in

\footnote{177. Id. at 1105.}
\footnote{178. Id.}
\footnote{179. National Broadcasting Co. v. United States, 319 U.S. 190, 213 (1943). See also id. at 226 ("Unlike other modes of expression, radio inherently is not available to all. . . . [T]hat is why, unlike other modes of expression, it is subject to governmental regulation.").}
\footnote{180. Id. at 212-13.}
\footnote{181. CBS v. Democratic Nat'l Comm., 412 U.S. at 101.}
\footnote{182. Office of Communication of United Church of Christ v. FCC, 359 F.2d 994, 1003 (D.C. Cir. 1966). See also Red Lion Broadcasting Co. v. FCC, 395 U.S. 367 (1969) ("It does not violate the First Amendment to treat licensees given the privilege of using scarce radio frequencies as proxies for the entire community, obligated to give suitable time and attention to matters of great public concern."); National Broadcasting Co., 319 U.S. at 215-16.
One commentator has expressed a contrary viewpoint: "Spectrum scarcity justifies, if anything, diversity of speech in the broadcast medium, not government censorship." Krattenmaker & Esterow, Censoring Indecent Cable Programs: The New Morality Meets the New Media, 51 Fordham L. Rev. 606, 621 (1983).}
\footnote{183. See NETWORK INQUIRY SPECIAL STAFF, FEDERAL COMMUNICATIONS COMMISSION, NEW TELEVISION NETWORKS: ENTRY, JURISDICTION, OWNERSHIP AND REGULATION 14-30 (Oct. 1980) [hereinafter cited as NETWORK INQUIRY].}
\footnote{184. Sixth Report and Order on Television Allocation, 41 F.C.C. 148 (1952).}
\footnote{185. Very high frequency (VHF) and ultra high frequency (UHF) are in the 30-3,000 MHz band. See S. HEAD, supra note 171, at 31.}
1952 are available for assignment in each community.\textsuperscript{186} As a result, only three VHF commercial outlets prevail in most markets.

In the years since the scarcity rationale for broadcast regulation was first articulated, there have been dramatic changes in the video marketplace. In 1934, for example, there were 583 AM stations and no FM or television stations on the air.\textsuperscript{187} As of March 1983, there were 4,708 AM stations, 3,421 commercial FM stations and 834 television stations (527 VHF, 307 UHF).\textsuperscript{188} There were also 1,090 FM educational radio stations, 175 educational UHF TV stations, and 111 educational VHF TV stations as of

\textsuperscript{186} Co-channel and adjacent-channel stations must be separated geographically to avoid interference. See 47 C.F.R. §§ 73.610(b)(1) & (c)(1) (1982). UHF operation results in interference problems, known as “UHF taboos,” which may preclude the use of up to 16 channels in a particular area. See Note, \textit{UHF and the FCC: The Search for a Television Allocation Policy}, 28 U. FLA. L. REV. 394, 402 (1976).

\textsuperscript{187} See Deregulation of Radio, 73 F.C.C.2d 457, 484 (1979).

\textsuperscript{188} FCC News Release, Rep. No. 8742 (Apr. 21, 1983). A proposal is pending to in-
that date. An estimated 28% of television households currently receive ten or more television stations over the air and 80% receive five or more signals. The Commission's television allocation goal—to provide a choice of at least two television services to all parts of the United States—has largely been met. The authorization of LPTV and DBS will further make free over-the-air television available nationwide.

The growth of independent stations and the use of satellites for program distribution have changed the content of broadcast signals. From 1977 to 1980, independent station revenues grew 60%, compared to a 45% increase in network revenues. The use of satellite earth stations by independent and affiliated network television stations has eroded the economic advantages of network program distribution and is thus largely responsible for the changing complexion of television programming.

Alternatives to conventional television further undermine the scarcity rationale. Although additional VHF outlets may be foreclosed in the larger markets, cable, MDS, SMATV, videocassettes, and videodiscs are increasingly available to American households. Additionally, LPTV and DBS will be available within the next few years. Many of these delivery modes do not utilize broadcast spectrum, and thus are not subject to the natural limitations upon the use of those frequencies. Moreover, ownership of the new technologies is not highly concentrated.

crease the number of VHF stations by means of short-spaced television “drop-in” assignments. See Table of TV Channel Allotments, 83 F.C.C.2d 52 (1980).

191. See Sixth Report and Order on Television Allocation, 41 F.C.C. at 160.
192. See BBC Study, supra note 115, at 14-19. The BBC Study documents a decline in the composite three network share from 90.7% in 1977-1978 to 79.6% in 1981-1982, an 11% decrease in four seasons. Id at 15; Table II-1 at 16. The nonnetwork share has more than doubled during this period.
193. Id. at 64.
194. Id. at 64-69. See also OPP REPORT, supra note 190, at 101.
195. The Commission's Office of Plans and Policy has broadly defined the home video market to encompass all services that deliver information and entertainment into the home. OPP REPORT, supra note 190, at 101. It concluded that “[a] narrow market definition, excluding the alternative media, will result in a severe underestimate of actual competition.” Id. The BBC Study supports the same conclusion, by demonstrating that network viewing in cable and pay cable households declines sharply. BBC Study, supra note 115, at 18; Table II-2, at 17.
196. The deconcentrated nature of the cable market, for example, has been acknowledged by the Commission. See NETWORK INQUIRY, supra note 183, at III-157-59; FEDERAL COMMUNICATIONS COMMISSION, OFFICE OF PLANS AND POLICY, FCC POLICY ON CABLE OWNERSHIP 4 (Nov. 1981).
Viewing the market as a whole, a large number of competitive alternatives is presently available to consumers. According to one estimate, 42.6 million households are capable of receiving cable television, 32.8 million are capable of receiving an STV signal and 16.6 million households could receive MDS. Only 43.9% of the available services are actually used, however, suggesting that supply exceeds demand. The same conclusion can be drawn from the fact that channels in the VHF and UHF bands, outside the larger markets, remain unused after more than two decades.

Alternatives to standard television service promise to increase. Basic cable households are expected to grow from 22.5 million to 47.3 million by the 1989-90 season. At the same time, pay cable is expected to increase from 12 million households (14.6%) to 42.5 million households (44.9%) in 1989-90. Over-the-air pay television subscribership, including MDS, STV, SMATV, DBS, and LPTV, also is expected to increase dramatically over the next eight years, with 12.3 million households (12.9%) projected by the 1989-90 season.

The environment is substantially different from that of 1927 when Congress, fearing that a small number of stations and equipment manufacturers were about to monopolize the limited frequencies available, passed the Radio Act of 1927. The above data project a dramatic growth in the pay video marketplace through the next decade. Moreover, technological developments could permit more efficient use of spectrum to produce even more delivery system opportunities. Multiplexing, compression and

197. OPP REPORT, supra note 190, at 84, table 2.
198. Id.
201. Id.
202. Id. See also id. at 81-91. STV subscribership, currently estimated at 1.4 million, could grow to 1.8 million by 1985. Id. at 81-83. By 1990, however, STV subscribership is expected to decline to 1.2 million. Id. MDS households now number 570,000, with conservative projections of 2.3 million households by 1990. Id. at 83-85. SMATV, now in the 100,000 to 250,000 subscriber range, could reach an estimated 500,000 households by 1990. Id. at 85-86. Direct broadcast satellites have the potential to reach about 5.4 million households by 1990, although some industry observers have predicted penetration of up to 11 million households. Id. at 86-88. DBS service could be initiated in the 1983-84 time frame, with a subscribership of 1.2 million households by 1985. Id. Low power television pay subscribers are projected at 100,000 in 1985, with a maximum of one million by 1990. Id. Use of videocassettes and videodiscs will also increase dramatically according to industry estimates.
203. For a further discussion of the early history of broadcast regulation, see Deregulation of Radio, 73 F.C.C.2d at 497-98.
204. As one commentator notes, "[t]echnology is an independent variable that makes scarcity a relative concept." Fowler & Brenner, supra note 199, at 222.
subcarrier operations are means of providing more than one service over the same spectrum allocation. As a result of such developments, the scarcity rationale might no longer be applicable to the emerging media environment.

B. Blurring of Regulatory Distinctions Between Broadcasting and Other Services

Technological developments have blurred the distinctions between broadcasting and other services. To understand the extent to which the traditional classifications have been strained, it is useful to outline the basic features of broadcast, cable common carrier, private radio and non-commercial broadcasting regulation.

1. Regulatory Differences Based Upon Nature of Service

a. Broadcast

The Communications Act of 1934 defines broadcasting as the “dissemination of radio communications intended to be received by the public, directly or by the intermediary of relay stations.”\(^{205}\) The meaning of the term derives mainly from a comparison with common carrier services, since, as the Act provides, “a person engaged in radio broadcasting shall not . . . be deemed a common carrier.”\(^{206}\) Broadcasting is also distinguished from “point-to-point” communications addressed to one or more specified reception points.\(^{207}\)

Broadcasters are regulated under title III of the Communications Act.\(^{208}\) Under title III, broadcasters are given broad discretion in determining the content of the programming they transmit and, with limited exceptions, are not required to provide access to their stations by others.\(^{209}\) Detailed technical regulations are imposed upon licensees to prevent interference with other stations, and to insure maximum service to the community and


\(^{207}\) See H.R. REP. No. 1850, 73d Cong., 2d Sess. 2 (1934); S. REP. No. 781, 73d Cong., 2d Sess. 3 (1934). See also Subscription Television Service, 3 F.C.C.2d 1, 9 (1966).


the nation.\(^{210}\) The main objectives are spectrum management, compatibility of receiving and transmitting equipment, and ensuring a high-quality signal.

Broadcast licensees are considered to be public trustees with a responsibility to provide public service to their communities. To fulfill this obligation, television broadcasters are required to ascertain the needs, problems, and interests of their community of license, and to provide responsive programming.\(^{211}\) For television stations, the Commission sets guidelines for overcommercialization and programming categories.\(^{212}\) Other rules prohibit broadcasting lottery information,\(^{213}\) running rigged contests,\(^{214}\) and failing to disclose consideration for material broadcast.\(^{215}\) Broadcasters have specific obligations concerning coverage of political events and issues,\(^{216}\) and they must provide adequate coverage of public affairs.\(^{217}\) Broadcast regulation is also concerned with ensuring a diversity of voices. To this end, the Commission restricts ownership of multiple broadcast stations\(^{218}\) and cross-ownership of broadcast stations by owners of other communications media.\(^{219}\)

b. **Cable Television**

The FCC was initially reluctant to regulate cable television, believing that it lacked jurisdiction under the Communications Act. In the mid-1960's, however, the Commission resolved these doubts and embarked upon a period of active regulation in order to promote nationwide television service.\(^{220}\) The Commission's jurisdiction over cable television was upheld in *United States v. Southwestern Cable Co.*,\(^{221}\) insofar as "reasonable..."


\(^{211}\) Ascertainment of Community Problems, 57 F.C.C.2d 418 (1976).

\(^{212}\) See 47 C.F.R. § 73.6010 (1982).

\(^{213}\) Id. § 73.1211.

\(^{214}\) Id. § 73.1216.

\(^{215}\) Id. § 73.1212.


\(^{218}\) See 47 C.F.R. § 73.636 (1982).

\(^{219}\) See 47 C.F.R. §§ 73.636, 76.501(a) (1982).

\(^{220}\) See, e.g., CATV, 2 F.C.C.2d 725 (1966), *aff'd sub nom.* Black Hills Video Corp. v. FCC, 399 F.2d 65 (8th Cir. 1968).

\(^{221}\) 392 U.S. 157 (1968).
ably ancillary . . . for the regulation of television broadcasting."\textsuperscript{222} The Supreme Court subsequently applied the "reasonably ancillary" standard in \textit{United States v. Midwest Video Corp.}\textsuperscript{223} (\textit{Midwest Video I}) to uphold FCC rules requiring cable systems to originate programming and to make available facilities for local production of programs.

The Supreme Court later limited the FCC's jurisdiction over cable television in the second \textit{Midwest Video} case (\textit{Midwest Video II}).\textsuperscript{224} It interpreted section 3(h) of the Communications Act as preventing imposition of common carrier-type obligations upon cable operators. In so holding, it struck down Commission rules requiring systems with more than 3,500 subscribers to provide access channels, to increase capacity to twenty channels, and to provide two-way non-voice communication.\textsuperscript{225}

Since \textit{Midwest Video II}, the Commission has retreated from further regulation of cable systems, and has, in fact, repealed the core of the cable regulatory structure which was based on an inter-industry consensus reached in 1972.\textsuperscript{226} In particular, the Commission rescinded distant signal carriage and syndicated program exclusivity restrictions on cable retransmissions.\textsuperscript{227} Presently, the FCC ensures nonduplication protection for network and sports programs,\textsuperscript{228} protects cable systems against excessive franchise fees,\textsuperscript{229} and requires carriage of local broadcast signals by cable systems.\textsuperscript{230} To the extent that the cable system engages in origination cablecasting, it must comply with equal time, fairness, lottery, obscenity, and sponsorship identification requirements.\textsuperscript{231}

c. \textit{Common Carrier}

The Communications Act defines a common carrier as "any person engaged as a common carrier for hire."\textsuperscript{232} In wrestling with this circuitous definition, the courts have concluded that a common carrier holds out, as available to the entire public for hire, facilities whereby all members of the public who choose to employ such facilities may transmit intelligence of

\textsuperscript{222} \textit{Id.} at 178.
\textsuperscript{223} 406 U.S. 649 (1972).
\textsuperscript{225} \textit{Id.}
\textsuperscript{227} \textit{Id.}
\textsuperscript{228} \textit{Id.}
\textsuperscript{229} \textit{Id.}
\textsuperscript{230} \textit{Id.}
\textsuperscript{231} \textit{Id.}
\textsuperscript{232} 47 U.S.C \textit{§ 153(h)} (1976).
their own design. Although AT&T dominates the domestic common carrier industry, diverse new entities have entered the market.

Common carriers and common carrier service offerings are regulated under title II of the Communications Act. Sections 201 and 202 of the Communications Act outlaw unjust, unreasonable, and discriminatory practices by common carriers furnishing interstate and foreign communications. The Act also requires the common carrier to file with the FCC “schedules showing all charges for itself and its connecting carriers for interstate or foreign wire or radio communications . . . and showing the classification, practices, and regulations affecting such charges.” The Commission is empowered to determine the lawfulness of any new or existing charge, classification, regulation, or practice of a common carrier, and to prescribe just and reasonable ones.

A common carrier must obtain a certificate of public convenience and necessity as a condition precedent to constructing, expanding, or terminating lines of communication. It must also establish terms and conditions of the service offering pursuant to a tariff. Common carriers are subject to rate of return and rate base regulation and may not discriminate unreasonably against users.

d. Private Radio

Private radio services “include nationwide and international uses of radio by persons, businesses, state and local governments, and other organizations licensed to operate their own communications systems for their own use as an adjunct of their primary business or other activity.” Such

233. See National Ass'n of Regulatory Utility Comm'rs v. FCC, 525 F.2d 630, 640-42 (D.C. Cir. 1976) (NARUC I); National Ass'n of Regulatory Utility Comm'rs v. FCC, 533 F.2d 601 (D.C. Cir. 1976) (NARUC II). The Commission adopted the NARUC I test for determining common carrier status in Domestic Fixed Satellite Transponder Sales, 52 Rad. Reg. 2d (P & F) 79, 87 (1982). It identified two criteria of common carrier status: “(1) whether there will be any legal compulsion to serve the public indifferently; and (2) if not, whether there are reasons implicit in the nature of the service to expect an indifferent holding out to the eligible user public.” Id. The key features of common carrier regulation are that services must be provided on a “first come, first served” basis, without discrimination, and that common carriers cannot influence the content of the messages transmitted, but must act merely as conduits. The Commission has discretion to forbear from imposing the full panoply of title II regulations where the entity lacks market dominance. See Competitive Common Carrier Servs., 52 Rad. Reg. 2d (P & F) 187, 189 (1982). See also ACLU v. FCC, 523 F.2d 1344 (9th Cir. 1975).
236. Id. at §§ 204, 205 (1976).
237. Id. at § 214 (1976).
238. Id. at § 203, 205 (1976).
239. 47 C.F.R. § 0.131 (1976).
services include almost all users of the spectrum that fit neither the broadcast nor common carrier model. The regulations are primarily technical and procedural, because the primary functions of private radio regulation are to allocate spectrum and to ensure its efficient and orderly use.\textsuperscript{240}

Unlike broadcast and common carrier regulation, eligibility is usually restricted to those engaged in a specific activity. These special eligibility requirements are used as a means of allocating spectrum among classes of users and controlling the number of users. Technical regulation beyond allocation and frequency assignment is limited to interference control.\textsuperscript{241}

e. Noncommercial Broadcasting

The FCC has allocated spectrum exclusively for noncommercial broadcasters (i.e., public radio and television).\textsuperscript{242} Stations using these reserved frequencies are licensed by the FCC and, with a few exceptions, are subject to the same regulations as commercial licensees.\textsuperscript{243} Such licensees must be nonprofit institutions with a cultural or educational orientation.\textsuperscript{244}

Unlike their commercial counterparts, public broadcasters receive government funding. A capital grant program for noncommercial stations was established in 1962,\textsuperscript{245} and expanded in 1967\textsuperscript{246} with the creation of the Corporation for Public Broadcasting (CPB). The Public Broadcasting Service (PBS), formed in 1970 by CPB and a group of noncommercial television licensees, operates as the distributive arm of the public television system, providing national programming to member stations by means of common carrier facilities.

With the erosion of federal funding, noncommercial stations are exploring new financing options.\textsuperscript{247} This has led to a relaxation of restrictions

\textsuperscript{240} See generally DBS Report supra note 60, at 53-56.
\textsuperscript{241} See generally 47 C.F.R. Part 90 (1982). The Commission limits the ways in which various private radio users can share frequencies and equipment, and also restricts the types of communications which may be made in the private services.
\textsuperscript{242} See Sixth Report and Order on Television Allocation, 41 F.C.C. at 158-67, 227-563. Freeing public broadcasters from profit-oriented commercial pressures is seen as a way to provide distinctive programs appealing to small, highly differentiated markets.
\textsuperscript{243} See, e.g., 47 C.F.R. §§ 73.621, 73.503 (1982). Public television licensees, for example, are not permitted to accept compensation for on-air promotion of the goods and services of “for-profit” organizations.
\textsuperscript{244} See 47 C.F.R. § 73.621(a) (1982).
\textsuperscript{245} Educational Broadcasting Facilities Act, Pub. L. No. 87-447, 76 Stat. 64 (1962).
\textsuperscript{246} Public Broadcasting Act, Pub. L. No. 90-129, 81 Stat. 365 (1967), 47 U.S.C. §§ 390-399 (1976 & Supp. III 1979) (as amended by the Public Telecommunications Financing Act, 92 Stat. 2405 (1982)). CPB, which was established as a funding mechanism for noncommercial broadcasting, is not itself permitted to engage in communication by wire or radio. Id. at § 396(g)(3).
\textsuperscript{247} See Public Broadcasting Amendments Act of 1981, §§ 1231-1233 of the Omnibus
imposed on such stations. The FCC, for example, has proposed permitting noncommercial television stations to offer subscription television services.\textsuperscript{248} The Commission also amended its rules to permit public broadcasters to broadcast logos and to identify product lines of program underwriters, thus relaxing the prohibition against promotional announcements of any kind.\textsuperscript{249} It has also authorized public TV stations to offer teletext services on a profitmaking basis.\textsuperscript{250}

2. Emergence of New Technologies Requires New Regulatory Classifications

The traditional, and discrete, regulatory classifications have been strained by the advent of new technologies. Direct-to-the-home subscription services, such as DBS, MDS and STV, resemble broadcasting in that the programming is similar to conventional television fare. By transmitting in scrambled form to subscribers, however, these services are akin to point-to-point communications which are directed to specific reception points. MDS, which delivers entertainment and information programming, operates as a common carrier. Use of the OFS—a private radio service—to transmit video programming raises similar issues. Videotex, which combines features of publishing, broadcasting and computers, is another “hybrid” service calling for a new regulatory approach. The multichannel video service proposals of entities such as CCC and Microband, which would use MDS and ITFS frequencies to provide broadcasting, pay video, common carrier, and other nonbroadcast services, also defy categorization.

Confronted with these regulatory dilemmas, the Commission’s approach has been to exempt “hybrid” services from provisions that apply to conventional broadcasting on an ad hoc basis, rather than establish a new regulatory classification. The Commission has employed a “forbearance” approach comparable to that applied in recent common carrier proceed-


\textsuperscript{249} Public Broadcasting Serv., 86 F.C.C.2d 141 (1981).

ings, presuming it has authority to refrain from imposing particular title III regulations where the public interest warrants. Moreover, in dealing with new technologies such as DBS, the Commission has articulated an "experimental" approach, whereby it declines to impose traditional regulatory classifications until it is clear how the new service will operate and whether it will be viable.

Although the Commission has, in some instances, eliminated artificial regulatory distinctions between services delivering comparable program products, it has in other proceedings perpetuated these distinctions. Admittedly, the FCC has been hampered in its efforts to formulate a consistent regulatory approach by the statutory obligations imposed by the Communications Act upon broadcasters.

a. STV

Ever since STV was introduced, the Commission has been troubled by the appropriate classification for the service, and has attempted to reconcile the subscriber relationship with the definition of broadcasting as a service intended for general public reception. Although the Commission concluded that the subscription operations of radio stations were point-to-point communications, not broadcasting, it reached the opposite conclusion about subscription television. The FCC based its decision on the STV industry's "intent to provide a radio or television program service without discrimination to as many members of the general public as can be interested in the programs."

The Commission more recently acknowledged that subscription televi-

---

252. For a discussion of the forbearance and experimental authorization approaches in the DBS context, see Lyons & Hammer, Deregulatory Options for a Direct Broadcast Satellite System, 33 FED. COMM. L.J. 185 (1981).
253. Adding to the confusion have been a number of court cases interpreting § 605 of the Communications Act. 47 U.S.C. § 605 (1976). That section, which prohibits unauthorized reception of radio signals, does not apply if the service is classified as broadcasting. Compare National Subscription Television v. S & H TV, 644 F.2d 820 (9th Cir. 1981) and Chartwell Communications Group v. Westbrook, 637 F.2d 459 (6th Cir. 1980) (holding that STV transmissions are not broadcasting and therefore entitled to protection under § 605) with Orth-O-Vision, Inc. v. Home Box Office, 474 F. Supp. 672 (S.D.N.Y. 1979) (holding that HBO's MDS transmissions are broadcasting for purposes of § 605).
256. Subscription Television, 15 F.C.C.2d at 472.
sion may be a hybrid, possessing qualities of both broadcasting and point-to-point services. In discussing subscription television operations, the Commission observed:

[W]hile a service authorized by the Commission cannot at the same time be classified as both broadcasting and common carrier, it does not follow that all services which may be authorized by the Commission must be classifiable by the Commission as either one or the other. There is no question as to the Commission's authority to authorize the use of radiofrequencies [sic] for numerous kinds of services which are neither broadcast services nor common carrier services. The safety and special radio services abound in examples . . . .\(^{257}\)

Consistent with this approach, the Commission concluded that it had authority to exempt subscription broadcast services from regulatory provisions that apply to conventional broadcasting.\(^{258}\) It so held in the *Third Report and Order* in Docket 21502\(^{259}\) which, among other things, relieved STV operators of ascertainment and conventional programming requirements. In eliminating these "behavioral" rules, the Commission compared STV to other pay services such as cable which are not hampered by traditional broadcast regulation.\(^{260}\)

**b. DBS**

The Commission opted for a flexible regulatory approach in its interim rules for DBS.\(^{261}\) It declined to specify a particular service classification, emphasizing the need to gather experimental data as to whether, for example, "satellite operators find it most feasible to operate as broadcasters, common carriers, private radio operators, or some combination or variant of these classifications."\(^{262}\) In the meantime, the appropriate regulatory approach will be determined on an ad hoc basis.

The appropriate statutory provisions will depend on the specific characteristics of the service each applicant proposes, including

\(^{257}\) Amendment of Part 3—Subscription Television, 23 F.C.C. 532, 541 (1957).


\(^{259}\) 90 F.C.C.2d 341 (1982).

\(^{260}\) See also Subscription Television Movie Restrictions, 41 Rad. Reg. 2d (P & F) 1491 (1977) (restrictions on feature films); Subscription Television Rules, 42 Rad. Reg. 2d (P & F) 1207 (1978) (restrictions on sports events); Enforcing Section 312(a)(7), 68 F.C.C.2d 1079, 1093 (1978) (exempting STV operators from § 312 requirements).

\(^{261}\) Direct Broadcast Satellites, 90 F.C.C.2d 676, 708 (1982), appeal pending sub nom. National Ass'n of Broadcasters v. FCC, Case Nos. 82-1926, 82-2233 (D.C. Cir.).

\(^{262}\) Direct Broadcast Satellites, 90 F.C.C.2d at 708-09.
the proposed method of financing, whether the service would be offered to the general public, and the degree of control the applicant would exercise over program content. If the proposal falls within any of the conventional regulatory classifications for radio services, i.e., broadcast, common carrier or private radio, we will impose the statutory requirements of that service.263

Departing from the traditional approach, whereby utilization of spectrum allocated to a particular service defines the appropriate regulatory approach, the Commission indicated that a DBS applicant could choose the manner in which it would be regulated. Direct-to-home subscription services, over which the applicant retains control of the transmission content, would generally be classified as broadcast services.264 On the other hand, if a DBS applicant chooses to operate as a common carrier, it must offer its satellite transmission facilities indiscriminately to the public pursuant to tariff, under title II of the Communications Act.265 Under this approach, a DBS operator could "function as a broadcaster with respect to some channels and a common carrier with respect to others."266

The DBS proceeding also raised the question of how to regulate programmers who provide service directly to the public through facilities and frequencies licensed to a common carrier. The existing regulatory scheme, which clearly distinguishes broadcasters from common carriers, does not address this problem. The Commission concluded that Congress did not intend that customers of common carrier operators be licensed and regulated as broadcasters. It cited the fact that similar systems, such as MDS, which provide subscription programming services to individual residences, were not subject to traditional broadcast regulation.267 In so concluding, the Commission essentially permitted DBS channel programmers to avoid the same basic responsibilities and limitations as their counterpart terrestrial broadcasters, including the broadcast multiple ownership rules.

c. Electronic Publishing

Teletext, which combines characteristics of publishing and broadcasting, also poses regulatory dilemmas.268 On the one hand, teletext resembles the

263. Direct Broadcast Satellite Servs., 86 F.C.C.2d 719, 750-51 n.64 (1981). See also Direct Broadcast Satellites, 90 F.C.C.2d at 709.
264. Direct Broadcast Satellites, 90 F.C.C.2d at 709.
265. Id. The Commission, however, begged the question of how "common carrier" will be defined. See, e.g., Domestic Fixed Transponder Satellite Sales, 52 Rad. Reg. 2d (P & F) 79 (1982), where the Commission concluded that transponder sales are not common carrier offerings.
266. Direct Broadcast Satellites, 90 F.C.C.2d at 709.
267. Id. at 710.
268. FCC Commissioner Anne Jones has proposed "a single regulatory treatment" for
print media which is free from government regulation of programming content. On the other hand, broadcasters who lease transmission time to teletext operators may have little meaningful control over the programming transmitted, and therefore, resemble common carriers. In a third scenario, the teletext transmission may be inextricably linked to the broadcast material, as where a program schedule or subtitles are transmitted. In authorizing the service, the Commission addressed these regulatory implications.269

From all appearances, the Commission intends to perpetuate the traditional common carrier and broadcast distinctions in regulating teletext. The novel aspect of the Commission's approach is that broadcasters may, in certain circumstances, be subjected to common carrier or private radio regulation. The licensee who uses the VBI for teletext would be responsible for all transmissions of a broadcast nature. Nonbroadcast teletext activities, which resemble private radio or common carrier services, will be regulated according to the appropriate regulatory structure and rules.270 The licensee bears the responsibility of determining which regulatory classification applies.

The decision is significant in acknowledging that teletext's "unique blending of the print medium with radio technology fundamentally distinguishes it from traditional broadcast programming," and for exempting the service from political broadcasting and fairness requirements on those grounds.271 The Commission did not, however, eliminate the fundamental discrepancy in regulatory treatment based upon the delivery system utilized. If teletext is delivered by MDS, for example, it would be free from content regulation as a common carrier service. In contrast, the television licensee who uses the VBI for teletext would be required to retain control over all material transmitted in a broadcast mode with the right to reject any material that it deems inappropriate or undesirable.272


270. Id. at 1324-27. The Commission indicated that common carriage treatment will depend upon the manner in which the licensee conducts its business (i.e., whether the broadcaster holds out its transmission facilities to all people indifferently or whether it establishes stable, long-term contractual relationships with customers who are selected on a highly individualized basis). An analogous approach was utilized in the FM subcarrier proceeding, and in the Commission's decision authorizing sale of excess capacity by television auxiliary stations. See supra notes 174-78 and accompanying text.

271. Id. at 1322-24.

272. Id. at 1321.
Videotex raises additional regulatory issues when telephone lines are employed as a means of transmission. Use of cable to transmit videotex is also a murky area. It is, for example, unclear whether the Commission's "ancillary" jurisdiction extends to teletext and videotex services provided by cable systems. Another open question is whether the content regulations applicable to "origination cablecasting" could be invoked. To date, the Commission has not sought to regulate cable videotex.

III. Less is More—the Interplay Between Industry Changes and Regulatory Philosophy

A. Regulatory Developments Responsive to Rapidly Changing Characteristics of the Industry

As growth in the video marketplace has undermined the traditional rationale for, and regulatory distinctions of, mass media law, the FCC has increasingly relied upon natural market forces to effectuate the policy objectives underlying its regulatory scheme. While the premise of this article is that technological change has driven the FCC's current deregulatory efforts, this section notes the congressional and internal agency actions that have also played a role.

1. Institutional Changes

a. Rewriting the Communications Act

Congressional actions have influenced the Commission's regulatory philosophy, and have reflected changes in industry characteristics. During the period 1976-1980, Representative Lionel Van Deerlin, Chairman of the House Communications Subcommittee, proposed a "basement to attic" rewrite of the Communications Act. Although Van Deerlin's rewrite bill was not adopted, the introduction of other rewrite bills and the debate they elicited has had a significant impact on communications policy. For example, congressional oversight of the FCC's actions improved. Former FCC Commissioner Glen Robinson observed:

As part of a studied effort over the last two years to review and revise the entire legislative mandate of the FCC, the Subcommittee on Communications and its staff have shown greater attentiveness to, and more understanding of, important policy issues.


274. For a detailed discussion of this effort, see E. KRASNOW, L. LONGLEY & H. TERRY, THE POLITICS OF BROADCAST REGULATION 240-69 (3d ed. 1982).
than has been evident for at least twenty years . . . 275
Robert Bruce, former FCC General Counsel, said he regards the "rewrite process" as having "an enormous impact" on the development of substantive policies by the Commission.276

The rewrite proposals, by threatening the FCC's survival, spurred the agency to action. The Commission adopted major decisions deregulating radio,277 cable television,278 and earth station licensing.279 The FCC also took several bold initiatives providing open entry and deregulation in the common carrier industry.280 With respect to the provision of new broadcasting outlets, the FCC "dropped in" four VHF television channels,281 created a new low power television service,282 and authorized a direct-to-home satellite broadcast service.283 Van Deerlin and many other Washington, D.C. observers concluded that the FCC's bold actions "would have been impossible without the thunder and lightning sparked by those first two comprehensive bills."284 The Commission implemented administratively the rewrite's legislative goals of deregulation and increased marketplace competition, thus taking some of the steam out of the drive for legislation and establishing the agency in a leadership role.

b. Federal Paperwork Policy

The congressionally-mandated goal of federal paperwork reduction has influenced recent deregulatory efforts. In recognition of mounting and unprecedented paperwork burdens, Congress in 1974 determined that a renewed effort was necessary to control federal information requests, and created a Commission on Federal Paperwork to study the federal government's information gathering activities.285 In 1980, incorporating many of the Paperwork Commission's recommendations, Congress enacted the "Paperwork Reduction Act," which set a statutory goal of reducing the

---

278. See Malrite T.V. v. FCC, 652 F.2d 1140 (2d Cir. 1981).
280. For a discussion of these common carrier decisions, see Brenner, Communications Regulation in the Eighties: The Vanishing Drawbridge, 33 AD. L. REV. 255 (1981).
281. VHF TV Top 100 Market, 81 F.C.C.2d 233 (1980).
284. Van Deerlin, Progress Made Via "Rewrite" Dialog, VARIETY, Jan. 9, 1980, at 213.
burden of existing information demands upon the public 15 percent by October 1, 1982, and an additional 10 percent the following year.\footnote{286}

\textbf{c. Creating a Mass Media Bureau}

On September 14, 1982, the FCC created a Mass Media Bureau, providing a single, integrated organizational structure for administering policies regarding broadcasting, cable television, and emerging video technologies.\footnote{287} The bureau, which replaced the Broadcast and Cable Television Bureaus, includes a Video Services Division with branches for cable, broadcast television, LPTV, DBS, and other technologies.

The Commission said the Bureau was established:

To reflect new regulatory philosophies and emerging technologies . . . . This reorganization creates an integrated organizational structure for the administration of Commission policies regarding traditional broadcasting, cable television and the emerging television delivery systems, by combining these essentially similar consumer services into a single Bureau. The Commission believes that this consolidation will result in: (1) faster and more efficient authorization of service; (2) reduction of duplicate recordkeeping; (3) less confusion about FCC services among consumers; (4) greater flexibility of staff utilization; and (5) more orderly development of emerging television delivery technologies.\footnote{288}

Consolidation of video services under one bureau reflects the public perception of these services as substitutable options for entertainment and informational programming. The integrated organizational structure will also aid the Commission in developing and administering overall policies for video services.

\textbf{d. Regulation Based on Economic Theory}

The FCC’s conception of a wide-open video marketplace and the resulting structural changes within the agency are rooted in actions taken by President Carter’s FCC chairman, Charles Ferris. Ferris in effect transformed the Office of Plans and Policy into an office of “Chief Economist.” He introduced a substantial number of economists into the highest levels

\footnote{287} Order, 47 Fed. Reg. 47,828 (Oct. 28, 1982).
\footnote{288} Id. at 47,829.
of FCC decisionmaking and created an atmosphere in which past legal structures for broadcast regulation were challenged by economic models favoring open entry for new technologies. His legacy includes the Network Inquiry Special Staff Report which has served as the basis for many of the recent deregulatory initiatives.

The current chairman, Mark Fowler, has also endorsed an open entry philosophy, whereby "new players [are] encouraged to come into the field." Calling the FCC the "last of the new deal dinosaurs," Fowler advocates a marketplace approach "where the marketplace rather than the myths of a trusteeship approach determines what programming the American people receive on radio and television and who provides it." Fowler coined the term "unregulation" to characterize the principle that should guide the Commission's efforts:

[S]imply it means that we examine every regulation on the books and ask, 'Is it really necessary?' If, in our judgment, it has outlived its usefulness, we must make every effort to get rid of it. This approach is in harmony with the concept that government should eliminate unnecessary regulation of business and society.

2. Implementation of the Marketplace Approach
   a. Radio Deregulation

The analysis employed in the FCC's radio deregulation decision has served as a basis for the "marketplace approach" employed in later deregulatory actions. In that proceeding, the Commission eliminated its internal processing guidelines which required full Commission consideration of any renewal application proposing less than 8% (AM stations) or 6% (FM stations) nonentertainment programming, or proposing to broadcast more than eighteen minutes of commercial matter per hour. Formal-

289. See E. KRASNOW, L. LONGLEY & H. TERRY, supra note 274, at 46.
290. Id. at 26; see also Fowler & Brenner, supra note 199, at 246-48.
291. Fowler, Broadcast Unregulation in the 1980's, TELEVISION QUARTERLY 8-9 (Spring 1982). See also Fowler & Brenner, supra note 199, at 256.
293. Fowler, supra note 291, at 29-30.
294. Deregulation of Radio, 84 F.C.C.2d 968 (1981), aff'd in part, remanded in part Office of Communication of United Church of Christ v. FCC, Case No. 81-1032 (D.C. Cir. May 10, 1983). The court remanded that aspect of the decision eliminating program logs and instructed the FCC to conduct a further proceeding to determine what records should be retained to demonstrate service to the community.
istic requirements for ascertainment of community leaders and for a
general public survey were also eliminated for commercial radio licensees.

The Commission cited present market conditions in the radio industry
as the basis for deregulation. In particular, the agency noted the dramatic
growth of the radio industry, of FM radio service, and of alternative
sources of informational programming. It stressed that the increased
number of outlets has lead, in turn, to increased specialization and compe-
tition in the radio marketplace. Radio, the Commission concluded, has
been largely transformed into a specialized medium, offering program-
ing geared to narrower audiences.

The Commission concluded that its public interest mandate compelled it
to review and modify its regulations in light of changes in the radio indus-
try. Indeed, it observed, "failure to so do could constitute less than ade-
quate performance of our regulatory mission." The Commission stated:

It is well settled that [the public interest] standard was deliber-
ately placed into the Act by Congress so as to provide the Com-
mission with the maximum flexibility in dealing with the ever
changing conditions in the field of broadcasting. Moreover, a
wide latitude has been provided the Commission to modify its
regulations in the face of such changes. We believe that it is en-
tirely consistent with our authority, and our mandate, to consider
the changes in broadcasting that have occurred, at an ever accel-
erating pace, over the past half century, and to adapt our rules
and policies to those changes.

In addition to establishing the Commission's authority to adapt its regula-
tions to changing characteristics of the industry, the decision also demon-

295. 84 F.C.C.2d at 969.
296. See Deregulation of Radio, 73 F.C.C.2d 457, 486 (1979):
[The dramatic growth in the number of radio stations, particularly FM, has not
simply represented an increase in the number of fringe or marginal stations in
urban areas, but rather has increased the number of strong, viable competitors in
these markets. This kind of competition tends to force stations, in their own self
interest, to be responsive to shifts in consumer tastes or else lose their audience to
more responsive stations.

297. See, id. at 487-91; Deregulation of Radio, 84 F.C.C.2d at 969, 1065-66 ("the eco-

298. Deregulation of Radio, 84 F.C.C.2d at 969.
299. Id.
strates that marketplace forces, rather than government regulation, can act as an incentive for licensees to provide program diversity.

In this regard, the format case, FCC v. WNCN Listeners Guild, is also significant. The Supreme Court upheld the Commission’s decision to rely upon market forces rather than government supervision to promote diversity in entertainment programming. The Commission had concluded that FCC review of format changes in license renewal or transfer cases was unwarranted. The Commission labelled the market the “allocation mechanism of preference for entertainment formats,” noting that competition had already produced a “bewildering array of diversity” in entertainment formats. It added that the market is more flexible than government regulation and responds more quickly to changing public tastes. The Supreme Court upheld the FCC’s conclusion that “its statutory duties are best fulfilled by not attempting to oversee format changes.”

b. LPTV

The LPTV proceeding illustrates a situation in which the FCC has determined that “marketplace forces” will fulfill the policy objectives underlying conventional broadcast regulation. This decision, therefore, establishes a framework for further deregulation.

In authorizing LPTV service, the Commission adopted minimal programming requirements for licensees. As a result, LPTV stations need not comply with the formal ascertainment, minimum hours of operation, program log, and programming requirements applicable to full service television stations except where compelled by statute. The Commission reasoned that “government surveillance” of LPTV stations would interfere with marketplace conditions. Given the limited coverage areas of LPTV stations, the FCC concluded that responsiveness to local needs would be a condition of economic survival. The technical nature of the new service, the Commission observed, also warranted departure from the general principle of broadcast regulation that all elements of the community be provided with program service. For these reasons, the agency left

302. 450 U.S. at 590.
303. Id.
304. Id. at 595.
306. Id. at 518-20.
307. Id. at 518-19.
308. Id. at 513-17.
programming decisions to the discretion of licensees, and to the demands of the marketplace:

In many instances, particularly in rural or remote areas, low power stations will be set up specifically to fill local needs. In areas where the marketplace demands coverage of local events of common interest, licensees can be expected to provide it. In some urban markets, unserved ethnic enclaves may be targeted for low power service. But in a major market that already receives adequate local coverage from several full service stations, a low power licensee may discover and attempt to fill a need for additional national news, sports or entertainment programming. Such judgments properly are left to licensees; it is in their interest, and the public's, to garner audience by attempting to serve unmet needs.309

The Commission also adopted flexible ownership policies for the new service, dispensing with limits on the maximum number of stations permitted in common ownership, and with the restrictions on ownership by existing broadcast licensees in their markets. Due to the uncertain viability of the new service, it concluded that the possible loss of new entrants would be outweighed by the benefit of permitting experienced broadcasters to develop the service initially.

c. Cable Television Deregulation

In June 1981, the United States Court of Appeals for the Second Circuit affirmed the Commission's decision to deregulate cable television by rescinding the distant signal and syndicated program exclusivity rules.310 The distant signal rules limited the number of signals from distant stations (beyond thirty-five miles of the cable system's community) that a cable system could retransmit to its subscribers, in order to protect local stations.311 The syndicated program exclusivity rules authorized local television stations, which had purchased exclusive exhibition rights to a program, to demand that local cable systems delete that program from distant signals.312 The extent of this protection varied according to market size, program type, and time of showing.313 The Commission based cable deregulation upon several econometric and case studies concerning the im-

309. Id. at 518-19.
311. 47 C.F.R. §§ 76.59(b)-(e), 76.61(b)-(f), 76.63 (1980).
312. Id. at §§ 76.151-76.161.
313. For a summary of the history of FCC regulation of cable television, see Besen & Crandall, The Deregulation of Cable Television, 44 LAW & CONTEMP. PROBS., 77, 81-107 (1981).
pact of cable television on local station audiences and future cable penetration rates.\textsuperscript{314} It found that deregulation would have a negligible impact on local broadcast stations, and would, in fact, increase viewing options for consumers due to the greater availability of expanded cable services.

The Commission also cited the imposition by Congress of copyright liability upon cable television systems as a justification for deregulation.\textsuperscript{315} In 1976, Congress established a compulsory licensing system, under which cable operators would be permitted to retransmit programs without consent of the copyright owners, in return for payment of a prescribed royalty fee based upon the system's gross revenues and its carriage of distant signals.\textsuperscript{316} The Commission felt enactment of this statutory scheme eliminated the need for regulations that had served as proxies for the copyright liability which courts had refused to impose upon cable systems.\textsuperscript{317}

Since deletion of those rules, it appears that copyright royalties may, in fact, operate to limit carriage of distant signals and syndicated programming. The Copyright Royalty Tribunal substantially increased the rates that cable operators must pay for broadcasting such signals.\textsuperscript{318} This economic factor may cause many cable systems to drop the programming they picked up after the \textit{Malrite} decision and substitute other, made-for-cable program services for some distant television signals.\textsuperscript{319}

\textbf{d. Subscription Television Deregulation}

The Commission deregulated subscription television in four significant respects in an effort to give free play to marketplace forces: (1) it eliminated the "complement-of-four" rule that restricted STV operation to communities primarily served by at least five commercial television stations including the STV operator; (2) it deleted the requirement that STV stations broadcast at least twenty-eight hours of conventional program-

\begin{footnotesize}
\textsuperscript{314} See, e.g., Economic Relationship Between TV Broadcasting and CATV, 71 F.C.C.2d 632 (1979). The Report concluded that cable penetration might, at most, reach 48\% of all households, \textit{id.} at 672; that the presence of cable television would reduce local station audiences by less than 10\%; and that the incremental audience diversion caused by eliminating the signal carriage rule would be less than 10\%. \textit{Id.} at 674. It should be noted that the study dealt with retransmission of over-the-air signals, not pay cable, and was conducted before most cities were wired for cable.

\textsuperscript{315} CATV Syndicated Program Exclusivity Rules, 79 F.C.C.2d 663, 763-64 (1980).


\textsuperscript{317} See CATV Syndicated Program Exclusivity Rules, 79 F.C.C.2d at 763-64.

\textsuperscript{318} Federal Communication Commission's Deregulation of the Cable Industry, 47 Fed. Reg. 52,146 (Nov. 19, 1982).

\textsuperscript{319} The "superstations" such as WTBS, Atlanta; WOR-TV, New York; and WGN-TV, Chicago, which have grown 50\% since \textit{Malrite}, could be the hardest hit. \textit{See Cox's San Diego System to Drop Superstation, Communications Daily, Dec. 23, 1982, at 4; Feeling the Weight of the CRT Signal Fee Increases, Broadcasting, Jan. 10, 1983, at 31-32.}
\end{footnotesize}
The "complement-of-four" rule was originally adopted to assure that pay TV would not replace an existing free service or utilize a vacant channel that would otherwise be available for a conventional station. The Commission later concluded, however, that current market conditions ensure that conventional programming would not be significantly impaired by eliminating the rule. Moreover, the Commission observed that the rule placed STV licensees at a competitive disadvantage compared to pay cable operators.

The "28 hour" rule, also designed to ensure the availability of conventional programming, mandated that a minimum amount of such programming be broadcast by STV stations. In deleting this requirement, the Commission noted that the "mix of conventional and pay programming might better be determined by the judgment of the individual entrepreneur and the demands of the marketplace," rather than by "an arbitrary government rule." The rule, in the Commission's view, served no public interest function, and its elimination would result in greater programming diversity by enabling the licensee to make programming determinations in response to audience demands.

Other elements of STV deregulation were also motivated by the FCC's analysis of the video marketplace. The decision to permit the sale of decoders, over the objections of system operators concerned about piracy, was influenced by the fact that "other pay technologies, such as cable, are offered on a lease or purchase basis . . . ." Elimination of ascertainment obligations for STV licensees also reflected a marketplace approach. The Commission stated:

321. The growth of pay cable and other pay services provides a compelling reason for removing restrictions to the introduction of STV. In facing the competition offered by pay cable, STV stations are at a potential disadvantage because they operate on a single channel, whereas cable offers multiple channels. It has been found that pay services which enter a market first have an advantage over similar types of services which follow. We do not believe that the public interest is served by a regulation which restricts market entry by one pay service but leaves those markets open to others. Rather, the public is best served by allowing interested parties to establish STV stations wherever they believe a market exists and a channel is available.

Id. at 350 (citations omitted).
322. Id. at 351.
323. Id. at 353.
We believe that ascertaining the community's STV interest can be more than adequately accomplished by the operation of the marketplace. It seems evident that consumers subscribe only to those pay television systems offering programs meeting their STV interests. It is clearly in the operator's best interest to fashion station offerings to meet those needs.\textsuperscript{325}

In sum, this recent deregulatory decision is significant in recognizing that STV competes with alternative forms of home video entertainment such as cable, pay cable and MDS, and that the STV licensee must be placed on an equal footing with its competitors.

e. Common Carrier Deregulation

The FCC has taken deregulatory action in the common carrier field that parallels its marketplace approach in the broadcast area. In its \textit{Second Computer Inquiry (Computer II)}, the Commission eliminated regulation of data processing and telephone equipment offerings by common carriers.\textsuperscript{326} Instead, the Commission decided to limit common carrier regulation to "basic transmission services," defined as the provision of pure transmission facilities indifferent to the information transmitted.\textsuperscript{327} Any offering that is more than a basic transmission service is considered an "enhanced service" not subject to common carrier regulation.\textsuperscript{328} The Commission also decided that all new customer premises equipment (CPE) would be offered on an unregulated basis after January 1, 1983.

The decision reflects the Commission's recognition that any new attempt to formulate regulatory distinctions between communications and data processing would be quickly outdated by technological advances further blurring the already elusive boundary. The Commission identified several advantages in forbearing from regulation of enhanced services. First, it would be able to focus its regulatory efforts on the underlying basic services clearly covered by the Communications Act, and would be relieved of the time consuming chore of ad hoc determinations to distinguish enhanced services which may arise from future technological advances. Second, it would provide maximum flexibility to service vendors in structuring their enhanced offerings to meet individualized customer needs without fear of overstepping some arbitrary boundary delineating the regulated from the unregulated. Third, consumers would benefit from the additional economies-of-scale that would be likely to result from the

\textsuperscript{325} Id. at 231-32.
\textsuperscript{326} Second Computer Inquiry, 77 F.C.C.2d 384 (1980), \textit{aff’d sub nom.} Computer & Communications Indus. Ass’n v. FCC, 693 F.2d 198 (D.C. Cir. 1982).
\textsuperscript{327} 77 F.C.C.2d at 419-20.
\textsuperscript{328} Id. at 420.
greater use of the basic telecommunications network.\textsuperscript{329}

More recently, the FCC concluded that it has the authority to forbear from regulating common carrier services under appropriate circumstances.\textsuperscript{330} In particular, title II regulatory requirements may be waived "[w]here [the FCC] determine[s] that the cost of such regulation outweigh[s] any perceivable benefits."\textsuperscript{331} Initially, this authority will be exercised to eliminate section 214\textsuperscript{332} and tariff requirements with respect to certain "pure resellers," (i.e., carriers that do not own any transmission facilities). This action represents a limited first step toward deregulation that is probably intended to serve as a court test for the FCC's newly asserted discretion to forbear from regulating common carriers under the Communications Act.

\subsection*{f. Technical Standards}

A marketplace approach has prevailed in several recent proceedings involving technical standards for new communications services. These proceedings are AM stereo, DBS and teletext.

After a half decade of deliberations, the FCC decided to allow the marketplace to determine the AM stereo system or systems best suited for United States broadcasting.\textsuperscript{333} Faced with five competing systems proposed by five different manufacturers, the Commission elected simply to set minimum performance standards that all five systems would be capable of meeting.\textsuperscript{334}

In pursuing its "marketplace" approach, the FCC candidly recognized that its failure to select a system could mean that no system would be adopted widely enough to sustain AM stereo in the market.\textsuperscript{335} The Commission, however, viewed this outcome as preferable to one in which the government, by endorsing a particular technical system, guarantees its success.\textsuperscript{336} Governmental interference with normal market development, in the Commission's view, would have to be justified by extraordinary circumstances. The Commission observed:

\begin{itemize}
\item \textsuperscript{329} Id. at 425-30.
\item \textsuperscript{330} Common Carrier Services, 91 F.C.C.2d 59 (1982).
\item \textsuperscript{331} Id. at 61. See also Domestic Fixed Satellite Transponder Sales, 52 Rad. Reg. 2d (P & F) 79 (1982).
\item \textsuperscript{333} AM Stereophonic Broadcasting, 51 Rad. Reg. 2d (P & F) 1 (1982).
\item \textsuperscript{334} Id. The Commission adopted a similar "open environment" for teletext. See FCC News Release Rep. No. 17,427 (Apr. 1, 1983).
\item \textsuperscript{335} AM Stereophonic Broadcasting, 51 Rad. Reg. 2d (P & F) at 12.
\item \textsuperscript{336} Id.
\end{itemize}
A very strong case would have to be made in order to override the inherent benefits of consumers making their own choices rather than having their decisions made by government. . . . Our society generally has not seen fit to supplant the free decisions of consumers with those imposed by government, and there is no convincing reason why AM radio represents a special case.\textsuperscript{337}

The Commission employed a similar “open marketplace” approach in the DBS and teletext proceedings. The Commission declined to impose technical standards upon DBS systems since, in its view, such standards could stifle development of the new service.\textsuperscript{338} A flexible approach was perceived as the best way to permit DBS operators to respond to advances in technology, and to encourage the introduction of new services.\textsuperscript{339}

In the teletext area, the Commission also concluded that choice of a technical system should be left to the discretion of individual licensees.\textsuperscript{340} The Commission pointed out that an open market approach will allow licensees the freedom of choice necessary to operate teletext services tailored to their own specific situations and to respond to changes in demand and technical options.\textsuperscript{341} The open market approach, in its view, provides a mechanism for resolving the trade-offs among system features and prices that are extremely difficult for regulatory decisionmakers to resolve. Additionally, the Commission believed that its approach would hasten introduction of the service, by avoiding years of delay, while the FCC attempted to specify standards for a single system.\textsuperscript{342}

g. Ownership Policies

(1) Elimination of the Trafficking Rule

On November 18, 1982, the Commission deleted the “trafficking” rule,\textsuperscript{343} concluding that in the present competitive environment, the public

\begin{footnotesize}
\textsuperscript{338} Direct Broadcast Satellites, 90 F.C.C.2d at 716-17.
\textsuperscript{339} Id.
\textsuperscript{341} Id.
\textsuperscript{342} Id.
\textsuperscript{343} Transfer of Broadcast Facilities, 52 Rad. Reg. 2d (P & F) 1081 (1982). In 1962, the FCC adopted a rule on “trafficking” requiring that applications for license assignments or transfer of stock control must be designated for hearing, unless the license had been held for at least three years. 47 C.F.R. § 73.3597(a)-(d) (1982). The Commission defined “trafficking” in broadcast licenses and permits as the licensee’s acquisition of a station “for the purpose of reselling it at a profit rather than for the purpose of rendering a public service.” Powel Crosley, Jr., 11 F.C.C. 3, 23 (1945).
\end{footnotesize}
interest will be served best by allowing marketplace forces to regulate station sales.\textsuperscript{344} Under the new approach, broadcast licensees, who obtain their licenses through means other than the comparative hearing process, are no longer required to hold their licenses for a particular period before those licenses can be sold for a profit.\textsuperscript{345}

The FCC's decision, characterized by Chairman Fowler as "a true blockbuster in the unregulation process,"\textsuperscript{346} marks a significant step forward in the Commission's overall policy of increased reliance on marketplace forces rather than restrictive regulation to achieve its public interest objectives.\textsuperscript{347} Chairman Fowler has pointed out that "we generally reward those who buy an ailing company and, having turned its fortunes around, sell it. Under a trusteeship approach it is conduct unbecoming a public steward; under a market approach it is conduct rewarded by profit on resale."\textsuperscript{348}

Consistent with Chairman Fowler's view, the Commission's "trafficking" decision finds profit and public service to be compatible. Responding to the concern that "a licensee who acquired a station with a primary interest in imminent resale would work to increase the station's resale value rather than making a meaningful effort to provide programming in the public interest,"\textsuperscript{349} the Commission observed that marketplace forces would mitigate against such a result. "[I]n broadcasting, like any other business, important services can be performed by people who trade broadcast properties, rehabilitate ailing stations with new capital and ideas or relieve unwilling licensees of the responsibility of running a station they no longer want."\textsuperscript{350}

(2) Elimination of the "Top-Fifty" Policy

The Commission’s "Top-Fifty" Policy required those seeking to acquire a fourth TV station (either UHF or VHF) or third VHF station in the top fifty television markets to make a compelling public interest showing that the benefits of such ownership would "overcome the detriment with re-


\textsuperscript{345} Id. at 55,927. Licenses obtained as a result of a comparative hearing must be held for at least one year before they can be sold for a profit. The Commission concluded that this restriction was necessary to maintain the integrity of its hearing processes.

\textsuperscript{346} 47 Fed. Reg. at 55,930.

\textsuperscript{347} The decision also acknowledges that "artificial mechanisms" such as the trafficking rule may, by disturbing marketplace forces, overinflate station prices. Id. at 55,927.

\textsuperscript{348} Fowler & Brenner, supra note 199, at 245.

\textsuperscript{349} Transfer of Broadcast Facilities, 52 Rad. Reg. 2d (P & F) at 1088.

\textsuperscript{350} Id.
spect to the policy of diversifying the sources of mass media communications to the public."\textsuperscript{351} In abolishing this policy, the Commission relied largely upon changes in the video marketplace that had lessened concentration levels.\textsuperscript{352}

The Commission noted that the creation of new, competitive video outlets such as LPTV, and the existence of other multiple ownership rules, tend to foster diversity of program voices on the local and national levels.\textsuperscript{353} Based upon an analysis of economic concentration in the top-fifty markets since 1968, the Commission found no trend toward increasing concentration.\textsuperscript{354} Indeed, the Commission determined that "the top fifty markets are the very markets with the greatest number of competing voices, so that each owner's expected share of that potential audience will be much less."\textsuperscript{355}

(3) Relaxation of the Cable-Telephone Cross-Ownership Rule

The Commission has carved out a limited exemption from the ban on cable-telephone cross-ownership, for rural areas.\textsuperscript{356} In the future, telephone companies may operate cable television systems in rural areas, defined as places with less than 2,500 inhabitants, a definition encompassing roughly 26.3\% of the United States population.\textsuperscript{357} Waivers of the rule would still be required where a competing cable system is under construction or in existence.

In authorizing this limited entry by telephone companies, the Commission noted that competition would facilitate service to underserved rural areas. This benefit, in the FCC's view, outweighed the need to protect the cable television service from competition since that service had become increasingly viable.\textsuperscript{358}

B. Antitrust Law as a Remedy for Market Failure

The FCC's increasing reliance on marketplace forces has been accompanied by an emphasis on antitrust law.\textsuperscript{359} Antitrust law is perceived as a

\begin{itemize}
\item \textsuperscript{351} Multiple Ownership of TV Broadcast Stations, 22 F.C.C.2d 696, 700 (1968).
\item \textsuperscript{352} Top 50 Ownership Policy, 75 F.C.C.2d 585, 590 (1979).
\item \textsuperscript{353} \textit{Id.} at 592-93.
\item \textsuperscript{354} \textit{Id.} at 593-96.
\item \textsuperscript{355} \textit{Id.} at 595.
\item \textsuperscript{356} Telephone Co. CATV Cross-Ownership, 88 F.C.C.2d 564 (1981).
\item \textsuperscript{357} \textit{Id.} at 574-75.
\item \textsuperscript{358} \textit{Id.} at 572.
\end{itemize}
means of ensuring that natural market forces remain unrestricted, and as a 
source of guidance for the Commission's public interest determinations.

1. Recent Antitrust Settlements

a. AT&T—Department of Justice Consent Decree

On August 24, 1982, the United States District Court for the District of 
Columbia approved a settlement agreement in the Department of Justice's 
antitrust suit against AT&T and Western Electric Company, Inc. In 
exchange for divestiture of the twenty-two Bell Operating Companies 
which provide local telephone services, AT&T was allowed to retain its 
manufacturing and research subsidiaries (Western Electric and Bell Labor-
atories) and to engage in certain business activities prohibited by the 1956 
Consent Decree.

The 1956 Consent Decree restricted AT&T to the provision of regulated 
common carrier services. The settlement agreement, as originally pro-
posed by AT&T and Justice, would have eliminated any line-of-business 
restraints on AT&T following divestiture of its operating companies. In 
approving the settlement, however, Judge Harold Greene imposed restric-
tions on AT&T with respect to provision of “electronic publishing ser-
vice” transmitted over facilities owned by AT&T.

Based upon First Amendment concerns, the nascent nature of the industry, 
and AT&T’s ability to delay time-sensitive transmissions of its competi-
tors, Greene required a modification to the decree that bars AT&T from 
providing “electronic publishing over its own transmission facilities” for a 
seven year period. Judge Greene defined electronic publishing as “the 
provision of any information which AT&T or its affiliates has, or has 
caused to be, originated, authorized, compiled, collected, or edited, or in 
which it has a direct or indirect financial or proprietary interest, and which 
is disseminated to an unaffiliated person through some electronic 
means.”

The modifications, however, would not preclude AT&T from offering 
“electronic directory services that list general product and business catego-
ries, the service or product providers under these categories, and their 
names, telephone numbers, and addresses; or from providing the time, 
weather, and such other audio services as are being offered as of the date 
of the entry of the decree to the geographic areas of the country receiving 
those services as of that date.”

361. Id. at 225.
362. Id. In 1989, AT&T could petition the court for permission to enter the electronic
b. National Association of Broadcasters—Department of Justice
Consent Decree

The United States District Court for the District of Columbia held on March 3, 1982, that the commercial advertising restrictions in the Television Code of the National Association of Broadcasters (NAB) violate antitrust laws by artificially enhancing the demand for commercial time. An underlying issue in the litigation was the appropriate role to be played by broadcast industry self-regulation, government regulation and the free play of market forces.

The Justice Department had argued that the competition resulting from elimination of the Code provisions would operate to prevent excessive commercialization, as would the "emergence of new technologies (e.g., satellites) and the proliferation of new entertainment sources (e.g., cable, videotape)." The court did not speculate on the accuracy of this prediction, but said that the commercial restrictions were inconsistent with the basic Sherman Act policy favoring "free and fair competition."

Judge Greene approved a proposed consent decree between the NAB and Justice on November 23, 1982. In exchange for the government promising not to object to the dismissal of Judge Greene's March 3, 1982 order, the NAB agreed to stop disseminating or enforcing any rule governing the quantity, placement or format of non-program material.

2. Economic Models for Measuring Competition in the Marketplace

Commencing with the Network Inquiry Special Staff Report, the Commission has shown a renewed interest in antitrust law models as a basis for deregulation. In its 1980 final report, the Special Staff employed tools of antitrust policy and economic analysis in order to distinguish "patterns of ownership integration that threaten competition and diversity from those that will not harm these vital interests but, instead, may encourage a more efficient system of television networking."

In seeking to identify harmful conduct, the staff developed a theoretical framework whereby ownership questions were classified on a structural...
basis as horizontal, vertical or conglomerate, and recommended appropriate guidelines. An illustrative example is the staff's analysis of the network-cable cross-ownership rule, which, it concluded, is directed against conglomerate activity. Rather than maintain a wholesale prohibition of these ownership patterns, the report stated:

[T]he Commission should . . . employ rigorous horizontal analysis to identify a threshold of ownership concentration among the nation's cable systems below which the dangers of market power and cable network foreclosure are slight and then permit any firm to acquire cable franchises as long as its acquisitions do not push the firm's cable system aggregate ownership above that threshold.

After examining the relevant marketplace, the staff concluded that the existing rule operates to restrain competition and diversity in the cable market and prevents economies of scale "that could enhance efficiency and lower the price and increase the quality of cable service to advertisers and viewers."

The Commission has increasingly turned to antitrust law and economic models in an effort to distinguish anticompetitive behavior. In the network-cable cross-ownership proceeding, for example, Commissioner Dawson called for a definition of the relevant market and for a standardized measure of concentration in that marketplace. In her view, a means of determining the level at which concentration becomes detrimental to the public interest is "essential to insure a procompetitive transition to a de-regulatory marketplace."

The Office of Plans and Policy prepared a staff report to address these concerns. The report, entitled *Measurement of Concentration in Home Video Markets*, examines techniques for measuring concentration and market definition issues and recommends procedures the Commission could follow to develop a "media concentration index" as part of a program for monitoring ownership. Although the staff report recommends an expansive definition of product and geographic markets, including videodiscs and cassettes as well as the audio and print media, it makes sample calculations based on four "core" media in a video delivery market—

368. Id. at III-23, III-157-63.
369. Id. at III-163.
370. Id. A similar economic analysis is employed in *Staff Report, Office of Plans and Policy, FCC Policy on Cable Ownership* (Nov. 1981).
372. Id.
373. OPP REPORT, *supra* note 190.
New Video Marketplace

broadcast television, STV, MDS, and cable.\textsuperscript{374}

The report suggests that the Commission’s ownership policy goals (economic competition and diversity) are best viewed as processes to be encouraged rather than results to be mandated. Thus, if consumers have available a reasonably wide range of suppliers of goods, services and ideas from which to choose, ownership regulation is unnecessary and also is unwise in that it prevents efficient organizational arrangements. OPP concluded that local ownership rules may be needed to keep local markets reasonably competitive, but that no rigid national ownership rules are appropriate.\textsuperscript{375} When local markets are reasonably competitive, the Commission’s goals are realized within them. When local markets are not competitive, the Commission should examine the effect of mergers and acquisitions on concentration. Sample calculations in the report, based on the “worst case” assumption that no local markets are competitive, suggest that national concentration is quite low. The staff report recommends that if the Commission chooses to employ a concentration index, such as the Herfindahl-Hirschman index used by the Department of Justice, it should be used only as a monitoring tool that might trigger detailed analysis of some mergers or acquisitions.\textsuperscript{376}

Another recent proceeding, to revise the ownership attribution requirements, illustrates the Commission’s increasing reliance upon, and sensitivity to, principles of antitrust law in its public interest determinations. In seeking to redefine the interests cognizable under the multiple ownership rules, the Commission indicated that it would be guided by the antitrust laws and stated that any rule adopted must “advance the objectives of the antitrust component of the public interest standard embodied in the Communications Act.”\textsuperscript{377} The FCC also said that the rule should be tailored to avoid inhibition of “the most efficient combination of video distribution resources by erecting ownership standards which proscribe combinations that would not be suspect under the Justice Department’s recently revised antitrust and merger guidelines.”\textsuperscript{378}

IV. MARKETPLACE UNREGULATION: A BLUEPRINT FOR THE 1980’S

Consistent with the trends described above, the Commission’s reliance on marketplace forces rather than governmental restraints to achieve its

\textsuperscript{374} Id.
\textsuperscript{375} Id.
\textsuperscript{376} Id.
\textsuperscript{378} Id.
policy objectives can be expected to spur further deregulation during the rest of the decade. This section suggests the direction that "marketplace unregulation" is likely to take if carried to its logical conclusions, within the parameters of the existing statutory structure.

A. Entry Policies

The Commission's entry policies have traditionally been directed toward restricting the uses and users of spectrum. Over the next decade, the agency is likely to erode this traditional approach by permitting use of the spectrum for multiple services. The Commission's elimination of service "pigeonholes," based upon spectrum allocation, is evident in the FM sub-carrier and teletext proceedings, which permit broadcasters to transmit nonbroadcast materials and to operate as common carrier or private radio services. Other examples are the decisions permitting the sharing of idle ITFS and broadcast auxiliary spectrum. A foreshadowing of future trends in spectrum allocation appears in the Commission's recent proposal to permit "interservice" sharing of broadcast frequencies by private fixed service users, common carriers and cable systems.\(^3\)\(^7\)\(^9\) The Commission, in effect, has proposed to allocate according to the technical characteristics and electromagnetic compatibility of the services, rather than the type of regulatory entity involved.

Application of a marketplace approach in this area could, by opening up spectrum to new types of uses and classes of users, potentially bring an end to policies designed to preserve existing services. For example, regulation of cable and other pay services has been based largely on a concern that conventional free television service could be jeopardized by unfettered competition. In authorizing DBS, and deregulating cable and STV, the Commission concluded that its actions would not threaten the existence of conventional broadcasting. It skirted the politically charged issue, however, of whether the public interest continues to demand rules designed to preserve conventional broadcasting.

This approach could have ramifications for UHF television service. In the VHF drop-in proceeding, for example,\(^3\)\(^8\)\(^0\) the Commission proposed to disregard the effect of such allocations upon vacant UHF channels since UHF-TV has "achieved a reasonable degree of viability" and "it should be left to the marketplace to determine whether new service comes from VHF or UHF."\(^3\)\(^8\)\(^1\) By endangering the growth of UHF television, a marketplace

---

380. Table of TV Channel Allotments, 83 F.C.C.2d 52 (1980).
381. *Id.* at 77 (emphasis in original).
New Video Marketplace

approach could disrupt an important avenue of local television service.

Another potential development would be the adoption of measures
designed to facilitate entry by avoiding licensing delays. A lottery system,
for example, is one way in which the delays and expense of a comparative
hearing could be eliminated, thereby hastening new services to the public.
The Commission has adopted rules implementing a random selection sys-
tem for low power television and translator stations, certain private radio
services, and the public mobile common carrier radio service.\textsuperscript{382} Under
section 309(i) of the Communications Act,\textsuperscript{383} the Commission could estab-
lish a lottery to award initial licenses or construction permits involving any
use of the electromagnetic spectrum.\textsuperscript{384}

The Commission also appears to be moving towards a free market ap-
proach to entry whereby users of spectrum vie with each other to deter-
mine its best use. This approach is predicated on the view that decisions
rooted in perceptions of market value would achieve a more economically
efficient use of frequency spectrum.\textsuperscript{385} Natural economic forces would
perform the Commission's current allocation and interference control
functions, and there would be an end to regulatory or service distinctions.
Licensees could use their channels for whatever purpose they want consist-
tent with their frequency rights and international and United States
laws.\textsuperscript{386}

Auctioning would be one possible method of allocating spectrum under
a free market approach. By selling or leasing spectrum to the highest bid-
er, auctions would substitute decisions of the market for those of a regu-
laratory agency, with the market determining the price for a given channel
and its highest use.\textsuperscript{387} The auctioning approach has been proposed for
satellite orbital positions, satellite transponder slots and for MDS.

Another approach would impose fees for the use of spectrum, reflecting
its value. The difficulty with this approach is setting a "fair market value"
for spectrum. Such fees would have to duplicate the results of a competi-
tive market, and would need to take into account all relevant information
(i.e., class of license, location, bandwidth, and area of coverage).\textsuperscript{388}

\textsuperscript{382} Report and Order (Gen. Docket No. 81-768), 53 Rad. Reg. 2d (P & F) 1401 (1983).
\textsuperscript{384} See Conference Rep. No. 765, 97th Cong., 2d Sess. 37 (1982) for a discussion of
the public interest parameters which limit the Commission's discretion to use a lottery
system.
\textsuperscript{385} See generally D. Webbink, Frequency Spectrum Deregulation Alternatives 7 (Office of Plans and Policy, Sept. 1982).
\textsuperscript{386} Id. at 25.
\textsuperscript{387} Id. See also Barton, There's No Such Thing as a Free Airwave: A Proposal to Institute a Market Allocation Scheme for Electromagnetic Frequencies, 9 J. of Leg. 205 (1982).
\textsuperscript{388} See Siddall, Legal Analysis of Radio Spectrum Use Charges, Congressional Re-
B. Ownership Policies

The Commission's ownership rules have been directed primarily toward fostering diversity in programming through diversification of ownership. The Commission has also sought to increase competition, in order to prevent a concentration of control over sources of news and opinion. To achieve these objectives the Commission has enacted "concentration of control" rules, which generally place aggregate limits on ownership of broadcast properties, and "duopoly" rules, which limit the common ownership of communications outlets serving the same area. In addition, it has fostered diversity through its comparative licensing policies which give a preference to entities without other media interests.

There has been increasing recognition that ownership restrictions may be anachronistic at a time when the telecommunications marketplace is characterized by an abundance of outlets. In 1980, the Network Inquiry Special Staff concluded:

The Commission's rules respecting the number of communications outlets one firm may own within a single local market and, even more especially, its rules limiting the number of television stations one firm may own throughout the nation are arbitrary and capricious. They frequently impose uniform numerical limitations that have no apparent relationship to the distinct conditions of competition and diversity among the several services, and in the many markets, affected by these rules. Further, these rules impose disparate limits on the ownership of facilities which provide substantially similar services. The rules, without apparent justification, permit certain firms to acquire substantially more powerful and profitable facilities while owners of other, less

search Service, Library of Congress (Apr. 20, 1979) (concludes that there is no legally sure method to collect fees for the use of spectrum which guarantees returns that exceed the cost of administering the fee system).


390. 47 C.F.R. §§ 73.35(b), 73.240(a) (1982).


392. The FCC, for example, prohibits ownership of more than seven AM or FM radio stations, or more than seven television stations (of which no more than five may be in the VHF band). 47 C.F.R. §§ 73.35, 73.240, 73.636 (1982). The Commission forbids ownership of three broadcast stations where any two are within 100 miles of the third and there is a primary contour overlap. 47 C.F.R. § 73.636(a)(2) (1982). The Commission prohibits ownership of two stations in the same broadcast service located in the same or overlapping areas; of a VHF TV station and a radio station in the same market; or of a broadcast station and a daily newspaper in the same market. 47 C.F.R. §§ 73.35(a), 73.240(a)(1), 73.636(a)(1) (1982).
powerful, outlets are constrained in their ability to expand. As currently constructed, these rules often may serve only to impair the realization of efficiencies in the use of television outlets. Certainly, they should not serve as a model for Commission regulation of outlets employing new technologies.\textsuperscript{393}

Consistent with the Network Inquiry, the Commission has decided against imposing any limits on ownership or control of DBS during the experimental phase of its operation,\textsuperscript{394} declined to adopt limits on the number of cable systems or subscribers that could be controlled by a single entity,\textsuperscript{395} and rejected ownership restrictions for LPTV stations.\textsuperscript{396} As to the new technologies, the Commission concluded that experienced broadcasters could make significant contributions to services of uncertain viability. In effect, however, the Commission has accomplished an "end run" around existing multiple ownership rules. It makes little sense to perpetuate those rules when a broadcaster may own LPTV stations and MDS systems in its market capable of delivering a video product that is virtually indistinguishable from the consumer's standpoint.

The Commission has also proposed to eliminate the current restrictions on ownership of cable systems by the conventional broadcast networks.\textsuperscript{397} Its proposal reflects a recognition that, given the increasing numbers of video outlets and the deconcentrated nature of the cable marketplace, market dominance by any one firm is unlikely. Moreover, the proposed rule deletion acknowledges that ownership restrictions may inhibit certain efficiencies of operation which benefit consumers.\textsuperscript{398}

In addition, the stage has been set for a reexamination of the "7-7-7" rule. In Chairman Fowler's view, those restrictions, which limit a single owner to seven AM, seven FM, and seven TV outlets, make little sense when measuring impact if you compare owning seven stations in the top ten markets with owning seven in markets 125 to 150 . . . I prefer a view that looks at a company's overall impact in a market, not just at those media that happen to use radio

\textsuperscript{393} \textit{Network Inquiry, supra} note 183, at 17.
\textsuperscript{394} Direct Broadcast Satellites, 90 F.C.C.2d 676, 711-13 (1982).
\textsuperscript{397} Notice of Proposed Rulemaking (Docket No. 20521), 48 Fed. Reg. 10,082 (Mar. 10, 1982).
\textsuperscript{398} \textit{Id.} See also Levy & Stetzer, Measurement of Concentration in Home Video Markets (Dec. 23, 1982); \textit{Staff Report, Office of Plans & Policy, FCC Policy on Cable Ownership} (Nov. 1981). Also pending before the Commission is a petition for rulemaking, filed by the United States Independent Telephone Association, to repeal the cable-telephone cross-ownership prohibition. \textit{See} Broadcasting, June 27, 1983, at 7.
Catholic University Law Review

frequencies to distribute programming.399

C. Content Regulation

The telecommunications revolution spawned by cable and other technologies has spurred a reexamination of the merits of content regulation of programming carried by broadcast stations. Content regulation in the broadcast area has traditionally focused upon nonentertainment and public affairs programming, and upon the licensee's responsiveness to community needs and interests. Under a marketplace approach, market forces, not government prescriptions, determine the appropriate mix of programming.

The Commission's radio deregulation proceeding, recently affirmed by the court, reflects a movement away from government mandated programming toward a reliance upon consumer demand and licensee discretion. A similar approach was applied to STV and LPTV stations, which are exempted from the Commission's ascertainment and nonentertainment programming requirements. The next logical step would be the deregulation of television.400

There have also been efforts to repeal portions of the Communications Act which are perceived as interfering with the first amendment rights of broadcasters to make editorial judgments.401 These statutory provisions include sections 312 and 315, which impose reasonable access obligations and equal opportunities requirements upon broadcasters in their dealings with political candidates. Also targeted by the Commission are those sections prohibiting the broadcast of obscenity and lottery information. In calling for first amendment parity for the electronic media by eliminating the fairness doctrine, which requires licensees to present contrasting viewpoints on controversial issues of public importance,402 the Commission stated:

The “Fairness Doctrine” is a significant government intrusion on the First Amendment rights of broadcasters. The traditional spectrum scarcity argument which has provided the basis of the Doctrine has become increasingly less valid as new technologies proliferate and the number of broadcast facilities increases, par-


particularly as compared with the print media. Consequently, there is no longer any justification for imposing these obligations on broadcasters when it would be unconstitutional to do so on the print media. 403

Consistent with this view, Senator Robert Packwood has proposed statutory reform for electronic communication to bring its first amendment rights more in line with those accorded print and speech communication. 404

D. Technical Standards

The Commission, as indicated, has allowed a "marketplace" solution to the choice of technical standards with respect to AM stereo, teletext, and DBS. Consistent with its approach to these new technologies, the Commission has initiated an inquiry to examine existing technical regulations and to eliminate those which no longer serve any purpose. 405 The scope of the inquiry is "rules of an engineering/technical nature which limit or otherwise govern the public's use of the frequency spectrum, and the electrical characteristics of radio and other electronic equipment and systems under the Commission's jurisdiction." 406

This broad-based inquiry raises fundamental questions about the Commission's role in technical standardization. It suggests that marketplace forces may in some instances be substituted for technical regulations, effectively ending the Commission's "traffic cop" function. This technical deregulation could potentially eliminate transmission performance standards, allow any type of innovative transmission system to begin broadcasting without prior Commission approval and allow for existence of multiple, incompatible transmission systems.

V. EPILOGUE: THE UNTES TED ASSUMPTIONS OF MARKETPLACE UNREGULATION

As this article went to press, the United States Court of Appeals for the District of Columbia Circuit observed that the "rising tide of deregula-

404. Senator Packwood had supported a constitutional amendment to guarantee broadcasters full first amendment protection, but dropped the proposal because of the difficulty of adoption. He now favors legislation to repeal the fairness doctrine and political broadcasting rules. See "Pragmatic" Sen. Packwood to Drop First Amendment Push for Broadcasters, COMMUNICATIONS DAILY, Apr. 12, 1983 at 1-2.
406. Id. at ¶ 1.
tion" that was sweeping the country in general and the broadcast industry in particular has become "a tidal wave," and the Fowler Commission has become "one of the foremost advocates of across-the-board deregulation for the entire broadcast industry." This deregulation, as noted, has been spurred largely by technological developments that have brought about a more diverse and flexible video marketplace.

Consumers have a rapidly expanding choice of video entertainment and information services, including MDS, SMATV, cable television, videotex, videocassettes and videodiscs. Direct-to-the-home satellite television and LPTV will be available, in the near future, as an additional alternative to conventional television. More efficient spectrum use, through multiplexing, compression and subcarrier operations, could create even more video outlets.

These marketplace changes have forced the FCC to alter its traditional ways of regulating the media. The blurring of distinctions between common carrier, broadcast, private radio and print services, for example, has precipitated a more "functional" approach to regulation. Recognizing that, to the consumer, there is little difference between a movie delivered by satellite, and one by cable or VCR, the Commission has increasingly looked to the type of service offered and the manner in which it is offered—rather than the type of regulatory entity involved—in determining the appropriate regulatory treatment.

In addition, the scarcity rationale, which historically has justified government regulation, has been undercut by the multiplicity of competing video services now or soon to be available to consumers. Accepting the thesis that scarcity no longer exists, at least in the video marketplace, the Fowler Commission has viewed unfettered competition, rather than government regulation, as the best means of serving the public interest. Regulation is believed to be unnecessary and inefficient from the consumer perspective.

The FCC's General Counsel has predicted that history will record the contemporary era as one of Promethean and judicious change in the nation's telecommunications laws: "Spearheaded by intellectual developments that have discredited aged and misbegotten concepts of competition, the First Amendment, and the public interest, an irreversible erosion has begun into the colossus of regulatory law and policy assembled over a half century in Title 47 of the United States Code and its four-volume sister

residing in the Code of Federal Regulations." This glowing description
of the benefits of the Commission's reliance on market forces as a substi-
tute for regulation fails to acknowledge that the policy and legal assump-
tions underlying "marketplace unregulation" are still untested. Indeed,
the District of Columbia Circuit recently reminded the Commission in the
radio deregulation case that while the agency may strip away regulatory
accretions, a strict market approach may be contrary to the Communica-
tions Act. 409

While the benefits of competition are evident from the increased availa-
bility and diversity of video programming, it remains to be seen whether
competition will be effective to provide needed services absent regulation,
and whether the Fowler Commission's view of the marketplace as a bal-
anced mechanism is accurate. A possible consequence of increased com-
petition could be the eventual replacement of free service with pay
 television. Alternatively, some of the new technologies may not survive in
this competitive environment, making the heralded abundance of video
outlets an illusory promise. In addition, the Commission's authorization
of new services could disrupt other publicly beneficial services, or force
difficult choices, as indicated by the controversy between DBS and existing
terrestrial users of the twelve GHz band.

A marketplace approach can entail a certain degree of uncertainty, as
the area of technical standards illustrates. 410 Adoption of AM stereo, for
example, has been indefinitely delayed because of marketplace uncertain-
ties, and the difficulties of reaching a consensus due to antitrust law con-
cerns. It now appears that consumers may not get the opportunity the
FCC has in mind for them, namely, of "voting" with their dollars for the
best system. Similar problems can be expected to delay implementation of
teletext. A question is raised, therefore, as to whether the market can oper-
ate without FCC-selected standards.

Carried to its logical extreme, a marketplace approach could lead to the
withdrawal of regulatory involvement or termination of regulatory pro-
grams designed to fulfill social objectives. One result might be the elimi-
nation of Commission policies requiring broadcasters to air children's and
public affairs programs which would not otherwise be justified by the mar-
ketplace. Other Commission policies designed to implement social objec-

408. Address by Bruce E. Fein, General Counsel, FCC, to the Federal Communications
409. Office of Communication of United Church of Christ v. FCC, Case No. 81-1032,
slip. op. at 57 (D.C. Cir. May 10, 1983).
410. The Odd Couple, Broadcasting, Nov. 29, 1982, at 40. See also Technology: Wait-
 ing for the Marketplace, Broadcasting, Jan. 5, 1983, at 80; Sterling, The FCC and Chang-
ing Technological Standards, J. of Comm. 137 (Autumn 1982).
tives, such as equal employment opportunity, could fall by the wayside under the pure marketplace approach. Also, if the FCC were to embrace Chairman Fowler's characterization of television as "just another appliance—it's a toaster with pictures," it would make little sense for the Commission to be concerned about the qualifications or character of licensees.

In sum, the assumptions underlying "marketplace unregulation" are, as yet, untested, and its ramifications remain to be seen. Moreover, the public and the courts may be unwilling to see a marketplace approach carried to its logical conclusions. Indeed, the recent Court of Appeals' radio deregulation decision suggests that Congress—"and not the unrepresentative bureaucracy and judiciary"—may be the more appropriate source of deregulation over the next decade.412
