

cable

CHAPTER 6

and the specialization of television



- Although cable television is almost as old as broadcast television, broadcasters worked hard to stunt its growth throughout its first twenty-five years. Since the mid-1970s, however, when both HBO (Time Warner's premium movie service) and WTBS (Ted Turner's Atlanta TV station) became available to cable companies across the nation, cable television's growth has been rapid. In 1977, only 14 percent of all American homes received cable. By 1985, that number had climbed to 46 percent. In 1999, cable penetration hit about 70 percent, but it fell to 58.8 percent by 2007 as **direct broadcast satellite (DBS)** services like DirecTV captured a bigger piece of the market.

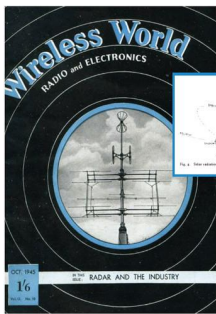
Technology and the Development of Cable

- Although today's technology is more advanced, cable TV continues to operate in pretty much the same way. The key technical distinction between cable and broadcasting remains:
 - In cable, programs reach TV sets through signals transmitted via wire; in broadcasting, signals are transmitted over the air.
 - The advantage of cable is that whereas the airwaves in any given community can accommodate fifteen or so VHF and UHF channels without electrical interference, cable wires can transmit hundreds of channels with no interference.

■ The first small cable systems—called **CATV**, or community antenna television—originated in Oregon, Pennsylvania, and Manhattan (New York City), where mountains or tall buildings blocked TV signals.

■ Unlike radio, which was intended to free mass communication from unwieldy wires, early cable technology sought to restore wires to improve the potential of television.

The Wires and Satellites behind Cable Television



■ In 1960, AT&T launched Telstar, the first communication satellite capable of receiving, amplifying, and returning signals. Telstar received transmissions from the ground, beamed from an *uplink* facility, and retransmitted the signals to a receiving dish called a *downlink*.

■ An active satellite, Telstar was able to process and relay telephone and occasional television signals between the United States and Europe. By the mid-1960s, scientists figured out how to lock a communication satellite into geo-synchronous orbit.

■ Hovering 22,300 miles from the equator, satellites could travel at more than 6,800 mph and circle the earth at the same speed the earth revolves on its axis. For cable television, the breakthrough was the launch of domestic communication satellites, first with Canada's *Anik* satellite in 1972, followed by the United States' *Westar* in 1974.

- The first satellites were capable of operating for seven or eight years and had twelve or twenty-four **transponders**, the relay points on a satellite that perform the receive-and-transmit functions.

- By the mid-1990s, the newest satellites had forty-eight transponders and lifetimes of more than fifteen years.
 - Cable program services such as MSNBC or the Discovery Network rent these transponders from satellite companies for million-dollar monthly fees.

- With cable, TV signals are processed at a computerized nerve center, or *headend*, which operates various large satellite dishes that receive and process long-distance signals from, say, CNN in Atlanta or MTV in New York.

- The headend relays each premium channel, local network affiliate, independent station, and public TV signal along its own separate line. These lines are made up of *coaxial cable*, *fiber optics*, or a combination of both.
 - most cable systems transmitted electronic TV signals via coaxial cable, a solid core of copper-clad aluminum wire encircled by an outer axis of braided wires. These bundles of thin wire could accommodate fifty or more separate channels, or lines, running side by side with virtually no interference.

- The first cable network to use satellites for regular transmission of TV programming was Home Box Office (HBO).

- The second cable network began in 1976, when media owner Ted Turner distributed his small Atlanta broadcast TV station to cable systems across the country via satellite. The station was eventually renamed WTBS (Turner Broadcasting Service). Turner launched the Cable News Network (CNN) in 1980 and followed it with a number of other cable channels.
 - "We're up on the bird. Now people can watch us from all over the country."
 - --Ted Turner, walking down the halls of his television station after TBS went live on satellite, 1976

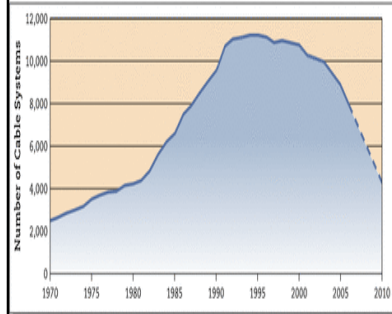
Balancing Cable's Growth against Broadcasters' Interests

- With cable's capacity for more channels and better reception, the FCC began to seriously examine industry issues.
- In 1972, the commission updated or enacted two rules with long-term effects on cable's expansion.
- First, the FCC reaffirmed **must-carry rules**, first established in 1965, which required all cable operators to assign channels to and carry all local TV broadcasts on their systems.
- Second, the 1972 FCC rules required cable systems to carry their own original programming by mandating **access channels** in the nation's top one hundred TV markets. In other words, operators of cable systems were compelled to provide and fund a tier of non-broadcast channels dedicated to local education, government, and the public.

Cable's Role: Common Carrier or Electronic Publisher?

- the cable industry had long preferred to view its content (the programming provided on its cable systems) as similar to that provided by **electronic publishers**, with the same "publishing" freedoms and legal protections that broadcast and print media enjoy in selecting content. That meant that the cable companies felt entitled to pick and choose which channels to carry.
- The FCC argued the opposite: that cable systems should be more like **common carriers** — services that do not get involved in channel content and, like telephone operators, do not question the topics of personal conversations
- In 1979, the debate over this issue ended in the landmark *Midwest Video* case, when the U.S. Supreme Court upheld the rights of cable companies to dictate their content and defined the industry as a form of "electronic publishing."
- Although the FCC could no longer mandate channels, the Court said that it was still okay for communities to "request" access channels as part of contract negotiations in the franchising process.

Franchising Frenzy



- By the end of the 1970s, particularly after the *Midwest Video* decision -
- Essentially, a cable franchise was a mini-monopoly awarded by a local community to the most attractive bidder, usually for a fifteen-year period.

The Telecommunications Act of 1996

- But the 1996 act has not resulted in extensive competition in cable.
- About 92 percent of U.S. cable subscribers live in communities that still have no viable competition to the local cable company.
- “Cable companies have monopoly power, and this shows in the prices they charge.”
 - –The Consumers Union, 2003

Cable Comes of Age

- In the new cable era, a redefined concept of narrowcasting—providing specialized programming for diverse and fragmented groups—has cut into broadcasting’s large mass audience.
- Because the audience is small and specialized, ads are a fraction of the cost of a network ad; they reach only the targeted viewers and not the larger general public. As cable channels have become more and more like specialized magazines or radio formats (see [Figure 6.3](#)), they have siphoned off network viewers. As a consequence, the networks’ role as the chief programmer of the shared culture has eroded.

The Top Cable Networks, 2007 (Ranked by Number of Subscribers)

1. Discovery Channel Subscribers: 92,600,000	11. ESPN 2 Subscribers: 91,800,000 (Tie)
2. CNN (Cable News Network) Subscribers: 92,300,000 (Tie)	12. Spike TV Subscribers: 91,700,000 (Tie)
3. ESPN Subscribers: 92,300,000 (Tie)	13. TBS Superstation Subscribers: 91,700,000 (Tie)
4. Lifetime Television (LIFE) Subscribers: 92,100,000 (Tie)	14. The Learning Channel (TLC) Subscribers: 91,700,000 (Tie)
5. TNT (Turner Network Television) Subscribers: 92,100,000 (Tie)	15. CNN Headline News Subscribers: 91,500,000 (Tie)
6. USA Network Subscribers: 92,100,000 (Tie)	16. ABC Family Channel Subscribers: 91,300,000 (Tie)
7. The Weather Channel Subscribers: 92,000,000 (Tie)	17. MTV (Music Television) Subscribers: 91,300,000 (Tie)
8. Nickelodeon/ Nick at Nite Subscribers: 91,900,000 (Tie)	18. HGTV (Home & Garden Television) Subscribers: 91,200,000 (Tie)
9. The History Channel Subscribers: 91,900,000 (Tie)	19. Cartoon Network Subscribers: 91,100,000 (Tie)
10. A&E Television Networks (A&E) Subscribers: 91,300,000 (Tie)	20. Food Network Subscribers: 91,100,000 (Tie)

- **basic cable:** in cable programming, a tier of channels composed of local broadcast signals, nonbroadcast access channels (for local government, education, and general public use), a few regional PBS stations, and a variety of popular channels downlinked from communication satellites.
- In 1992, eighty-seven cable networks were in business.
- By 2007, that number had grown to more than 530 networks serving cable and satellite television.
- Cable system capacities continued to increase due to
 - (1) the rebuilding of cable systems with high-bandwidth fiber-optic cable, and
 - (2) the advent of digital cable services in the late 1990s, which have enabled cable companies to expand their offerings beyond the basic analog cable channels.

CNN's Window to the World

- Beyond its financial success, CNN changed the way people watch news. Before CNN launched in 1980, and before the Internet, there were just two news cycles a day: in the morning, when people read the newspaper or tuned in to a radio or TV news show; and in the evening, when people listened to radio news on the way home or watched the evening network news on television.
- But CNN liberated viewers by offering a constant window into news happenings around the world. The network mastered continuous coverage of breaking news events.
- Because it wasn't forced to compress the day's news into a half-hour show, it was also able to deliver more timely news in greater detail and feature live, unedited coverage of news conferences, press briefings, and special events.
- Moreover, with a commitment to maintaining international bureaus (while other networks were shutting them down), CNN made a big impact on international news coverage. Today, CNN appears in more than two hundred countries and territories around the globe; more than two billion people have access to a CNN service.

"I Want My MTV"

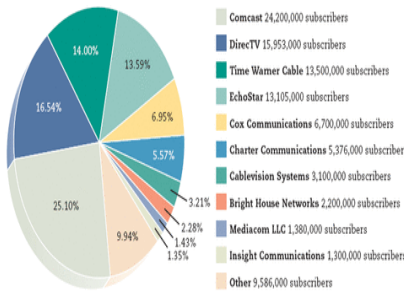
- The second basic cable service to dramatically change the world's cultural landscape is MTV (the Music Television Network). Launched in 1981 by Warner Communications and purchased by Viacom in 1985, MTV and its global offspring—including MTV Europe, MTV Brasil, MTV Latin America, MTV Russia, MTV Australia, MTV Africa, and MTV Asia—reach about 412 million homes worldwide.
- MTV began to stray from a rotation of music videos in the early 1990s to more original programming, including the reality-based soap opera *The Real World*, the cartoon *Beavis and Butt-head*, and the dating show *Singled Out*. The shift was an effort to provide advertisers with more regular audiences during specific viewing times.
- Beyond the world of music, one of MTV's major programming innovations has been the Nickelodeon channel.
 - In an era in which the major networks have largely abandoned children's programming because it isn't lucrative enough, competitors such as PBS and Nickelodeon have tried to fill the gap. As Nickelodeon and MTV kids reach adulthood, they no longer view broadcast programs as superior to cable, since they've spent most of their childhood watching cable networks.

Direct Broadcast Satellites: Cable without Wires

- From home satellites, the DBS business developed. Signal scrambling spawned companies that provided both receiving dishes and satellite program services for a monthly fee.
- In 1978, Japanese companies, which had been experimenting with "wireless cable" alternatives for a number of years, launched the first DBS system in Florida. With gradual improvements in satellite technology, the diameters of satellite receiving dishes decreased from more than twenty feet to three feet in a few years. By 1994, full-scale DBS service was available, and consumers could order satellite dishes the size of a large pizza.
- Today, the two leading DBS companies—DirectTV and EchoStar (known as the DISH Network)—offer consumers most of the channels and tiers of service that cable companies carry –
- In addition, DBS systems carry between 350 and 500 basic, premium, and pay-per-view channels, which can be purchased by customers in various packages. Thus DBS presents far more options than what is available on most conventional cable systems, which are limited by channel capacity.

Ownership and Business Issues in Cable and DBS

- Although there are about 7,900 cable systems in the United States, most of these systems are controlled by multiple-system operators (MSOs), a shrinking number of large corporations that each own many cable systems. Consolidation has happened quickly. For example, by 1998, the top 12 MSOs controlled the lines into 70 percent of all households wired for cable. By 2007, the top 5 MSOs served almost 80 percent of all U.S. cable subscribers



The Business of Cable

- In 1970, there were about 2,500 small cable systems operating in the United States; by 2007, about 7,000 systems were running. In 1976, there were two basic satellite-delivered services, two premium services, and no such thing as pay-per-view.
- Thirty years later, more than 530 channels were competing for channel space. Since 1980, basic cable rates have grown from about \$7 per month to more than \$41. Monthly prices for premium services, however, have essentially remained the same—less than \$9 a month per channel in 1980, and only a dollar or two more today. By 2007, total revenues from cable subscriptions and advertising exceeded \$101 billion a year.

Cable, DBS, and Implications for Democracy

- Offering more than new competition, cable's increased channel capacity provided the promise of access. With more channels, it was believed that access on cable would create vibrant debates, allowing ordinary citizens a voice on television. Access channels have, in fact, provided some opportunities for citizens to participate in public life and even create their own programs.
- For the most part, cable and DBS have come to follow the one-way broadcast model: Their operators choose the programming from a few service providers, with little input from citizens and consumers.
- As of 2007, 19 percent of U.S. households still relied on over-the-air broadcasts for their television programming. Although some people choose to limit their television options, others simply cannot afford the cost.
- So, as we ask ourselves how we can employ cable, DBS, and related technologies to serve social agendas while continuing to meet business and consumer needs, we need to remember to include in the discussion those who are disconnected from these communication systems.
