TELEVISION SWITCHING CHANNELS

08



Traditional TV networks, such as NBC, CBS and ABC, depend on successful comedy series, such as *The Big Bang Theory*, to attract a loyal audience for advertisers. But today new program suppliers, including Netflix and Amazon, are challenging the networks by providing subscription shows that stream on the Web without commercials.

What's Ahead?

- Television Transforms Daily Life
- TV Delivers an Audience to Advertisers
- Visual Radio Becomes Television
- Television Outpaces Radio
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 TV as a "Vast Wasteland"

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- Television Changes National and Global Politics
- Mergers Affect Station
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 Professional Sports

- Critics Challenge the Accuracy of TV Ratings
- Cable and Satellite Expand Delivery
- Television at Work
- Audiences Drive TV Programming
- Digital Technology Broadens TV's Focus
- Streaming TV Brings a New Vision

"We've had 80 years of linear TV, and it's been amazing. The next 20 years will be this transformation from linear TV to Internet TV."

-REED HASTINGS, CEO, NETFLIX

"Television is the pervasive American pastime," wrote media critic Jeff Greenfield in 1987. "Cutting through geographic, ethnic, class and cultural diversity, it is the single binding thread of this country, the one experience that touches young and old, rich and poor, learned and illiterate. A country too big for homogeneity, filled by people from all over the globe, without any set of core values, America never had a central unifying bond. Now we do. Now it is possible to answer the question, 'What does America do?' We watch television."

Forty years later, we still watch television, but where we watch television has changed. We still watch TV at home, but TV programs also have moved to the Internet, which makes current shows—as well as an endless archive of classic programs your parents watched—available on many different types of screens wherever and whenever you want to see them.

On average, American viewers watch television 31 hours a week, according to The Nielsen Company, which monitors television usage for advertisers. (See **Illustration 8.1**, "How Much Time Do People Spend Each Week Watching Traditional TV and Internet Video?" p. 150.) Even though you may not watch TV this much, the percentage of people in the United States who watch television more than you (especially people 50 and older) counterbalances your viewing time, which makes TV viewers a very lucrative market for advertisers.

Television Transforms Daily Life

It's not surprising that the effects of such a pervasive medium have attracted so much attention from parents, educators, social scientists, religious leaders, public officials and anyone else who wants to understand society's habits and values. TV has been blamed for everything from declines in literacy to rises in violent crime to the trivialization of national politics. Every once in a while it is praised, too, for giving viewers instant access to world events and uniting audiences in times of national crisis.

An industry with this much presence in American life is bound to affect the way we live. Someone who is watching television is not doing other things: playing basketball, visiting a museum or looking through a telescope at the planets, for instance. Television can, however, bring you to a museum you might never visit or to a basketball game you cannot attend or to the surface of a planet you can only see through a telescope.

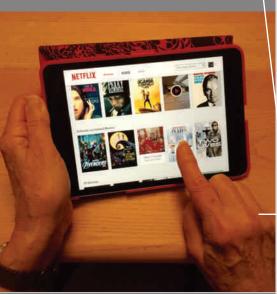
Television technology, by adding pictures to the sounds of radio, truly transformed Americans' living and learning patterns. The word *television*, which once meant programs delivered by antennas through over-the-air signals, now means a *television screen*, where several different types of delivery systems bring viewers a diversity of programs.

The programs Americans watch today are delivered by antennas, cables, satellites and the Internet and appear on many different types of screens. As a viewer, you probably don't really care how the programs arrive.

TimeFrame 1884–Today







Television Is the Nation's Primary Medium for News and Entertainment

- **1884** In Germany, Paul Nipkow patents the Nipkow disk, which forms the basis for TV's development through the 1920s.
- The word television first appears in the June 1907 issue of *Scientific American*.
- NBC's David Sarnoff debuts television at the World's Fair in New York City. President Franklin D. Roosevelt, broadcasting from the fair, is the first U.S. president to appear on TV.
- * 1947 NBC and CBS begin broadcasting television news.
 - CBS launches *I Love Lucy*, a situation comedy, which becomes TV's most durable type of entertainment program.
 - *Telstar I* sends the first transatlantic satellite broadcast.
- Public television begins broadcasting as National Educational Television. Network television provides nonstop coverage of the assassination and funeral of President John F. Kennedy.
 - The television networks present live broadcasts of the Watergate hearings.
 - Ted Turner starts Cable News Network. CNN's global reach gives the U.S. audience instant access to news about international events.
 - **1983** More than 120 million people tune in for the final episode of M*A*S*H, the highest-rated program ever.
 - TV broadcasts the Iran-Contra hearings.
 - More than 80 million people tune in for the final episode of *Cheers*.
 - TV news offers nonstop, ad-free coverage of the terrorist attacks at the World Trade Center, at the Pentagon, and in rural Pennsylvania.
 - TV broadcasts live news coverage of the Iraq War.
 - Congress mandates that TV broadcasters switch totally to digital high-definition signals by February 17, 2009.
 - More than 70 million people watch President Barack Obama's election night victory on TV on November 4, a record audience for a presidential election night.
 - **2009** The U.S. changes to a national high-definition television transmission standard (HDTV).
 - Television manufacturers introduce 3-D television.
- Netflix offers original programming via video streaming.
- Sesame Street celebrates its 45th anniversary.
 - **Today** HDTV is the standard for broadcast TV. TV programming is delivered by over-the-air broadcast, cable, satellite and Internet streaming.

IMPACT

Society

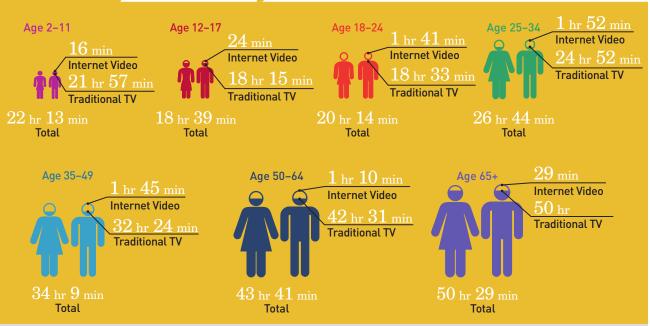


ILLUSTRATION 8.1

How Much Time Do People Spend Each Week Watching Traditional TV and Internet Video?

Americans spend an average of 31 hours a week watching traditional TV and video on the Internet. However, people who are 50 and over spend about twice as much time watching traditional TV as

younger viewers (18-49). And younger viewers (18-49) spend more time than older viewers (50+) watching video on the Internet.

"The Total Audience Report Q4 2014," nielsen.



What you do know is that television gives you access to all types of news and entertainment—drama, comedy, sports, news, game shows and talk shows. You can see many types of people-murderers, public officials, foreign leaders, reporters, soldiers, entertainers, athletes, detectives and doctors. The television screen is truly, as scholar Erik Barnouw observed, a "tube of plenty."

About 1,700 television stations operate in the United States. Three out of four of these are commercial stations. and the others are noncommercial stations. About half the commercial stations are affiliated with a network.

"The most common misconception most people have about television concerns its product," media critic Jeff Greenfield observed. "To the viewer, the product is the programming. To the

Collection/Cartoon Bank.com

television executive, the product is the audience. Strictly speaking, television networks and stations do not make any money by producing a program that audiences want to watch. The money comes from selling advertisers the right to broadcast a message to that audience. The programs exist to capture the biggest possible audiences."

TV Delivers an Audience to Advertisers

To understand why we get the programming we do, it is important to remember that commercial television exists primarily as an advertising medium. Programming surrounds the advertising, but it is the advertising that is being delivered to the audience. Commercial television, from its inception, was created to deliver audiences to advertisers.

Because television can deliver a larger audience faster than other mass media, television can charge higher rates than any other medium for its advertising—which makes TV stations rich investments. During a widely watched TV program like the 2015 Super Bowl (with an estimated audience of half the U.S. population and an even larger audience worldwide), a 30-second ad can cost as much as \$4.5 million. Today, even the smallest independent television station is a multimillion-dollar operation. However, the television era began much more humbly, and with very little excitement, around the turn of the 20th century.

Visual Radio Becomes **Television**

The word television first appeared in the June 1907 issue of *Scientific American*. Before then, experiments in image transmission had been called "visual wireless," "visual radio" and "electric vision." Alexander Graham Bell's telephone and Samuel F. B. Morse's telegraph contributed to the idea of sending electrical impulses over long distances.

The first major technological discovery to suggest that pictures also could travel was the Nipkow disk. Twentyfour-year-old Paul Nipkow patented the Nipkow disk, which he called the "electrical telescope," in Germany in 1884. This disk, which formed the basis for television's development through the 1920s, was about the size of a phonograph record, perforated with a spiral of tiny holes.

Also crucial in television's (and radio's) development were Guglielmo Marconi and Lee de Forest (see chapter 6). Marconi eliminated sound's dependence on wires and put sound on airwaves. De Forest contributed the Audion



In 1939, RCA's David Sarnoff introduced TV at the 1939 New York World's Fair. Other manufacturers, including Emerson, followed, and television soon became an essential part of daily life. This ad offers a TV, phonograph and radio all in one console.

tube, which amplified radio waves so that people could hear the sound clearly.

In 1927, Secretary of Commerce Herbert Hoover appeared on a 2-inch screen by wire in an experimental AT&T broadcast. On September 11, 1928, General Electric broadcast the first dramatic production, "The Queen's Messenger"—the sound came over station WGY, in Schenectady, N.Y., and the picture came from experimental television station W2XAD. All the pictures were close-ups, and their quality could best be described as primitive.

Two researchers, one working for a company and one working alone, brought television into the electronic age. Then the same man who was responsible for radio's popularity, RCA's David Sarnoff, became television's biggest promoter.



The three U.S. television networks began producing and distributing commercial programs in the late 1940s. This TV studio crew is producing a commercial in the 1950s.

Vladimir Zworykin was working for Westinghouse when he developed an all-electronic system to transform a visual image into an electronic signal that traveled through the air. When the signal reached the television receiver, the signal was transformed again into a visual image for the viewer.

Philo T. Farnsworth, working alone in California, developed the cathode ray tube (which he called a dissector tube). Farnsworth's cathode ray tube used an electronic scanner to reproduce the electronic image much more clearly than Nipkow's earlier mechanical scanning device. In 1930, 24-year-old Farnsworth patented his electronic scanner.

NBC television's commercial debut was at the 1939 World's Fair in New York City at the Hall of Television. On April 30, 1939, President Franklin D. Roosevelt formally opened the fair and became the first president to appear on television. Sarnoff also spoke, and RCA displayed its 5-inch and 9-inch sets, priced from \$199.50 to \$600 (equivalent to \$3,389 to \$10,192 in today's dollars)—a very expensive family purchase.

NBC and CBS were the original TV networks. A network is a collection of radio or television stations that offers programs, usually simultaneously, throughout the country, during designated program times.

In 1943, ABC, the third major network, grew out of NBC's old Blue network. ABC labored from its earliest days to equal the other two networks but didn't have as many affiliates as NBC and CBS. The two leading networks already had secured the more powerful, wellestablished broadcast outlets for themselves. David Sarnoff and William Paley controlled the network game.

Television Outpaces Radio

By 1945, 10 television stations were on the air in the United States. According to media historian Eric Barnouw, "By the late 1940s, television began its conquest of America. In 1949, the year began with radio drawing 81 percent of all broadcast audiences. By the year's end, television was grabbing 41 percent of the broadcast market. When audiences began experiencing the heady thrill of actually seeing as well as hearing events as they occurred, the superiority of television was established beyond doubt."

Black-and-white television replaced radio so quickly as the nation's major advertising medium that it would be easy to believe television erupted suddenly in a surprise move to kill radio. But remember that the two major corporate executives who developed television—Sarnoff and Paley—also held the coun-

try's largest interest in radio. They used their profits from radio to develop television, foreseeing that television eventually would expand their audience and their income.

News with Pictures

Broadcast news, pioneered by radio, adapted awkwardly at first to the new broadcast medium—television. According to David Brinkley, a broadcast news pioneer who began at NBC, "When television came along in about 1947–1948, the big time newsmen of that day-H. V. Kaltenborn, Lowell Thomas—did not want to do television. It was a lot of work, they weren't used to it, they were doing very well in radio, making lots of money. They didn't want to fool with it. So I was told to do it by the news manager. I was a young kid and, as I say, the older, more established people didn't want to do it. Somebody had to."

In 1947, CBS launched Television News with Douglas Edwards, and NBC broadcast Camel News Caravan (sponsored by Camel cigarettes) with John Cameron Swayze (see Chapter 12). Eventually, David Brinkley joined Swayze for NBC's 15-minute national newscast. He recalled, "The first broadcasts were extremely primitive by today's standards. It was mainly just sitting at a desk and talking. We didn't have any pictures at first. Later we began to get a little simple news film, but it wasn't much.

Network A collection of radio or TV stations that offers programs, usually simultaneously, throughout the country, during designated program times.





Dragnet (top), a 1950s series set in Los Angeles and starring Jack Webb, is an early example of one of the most enduring types of prime-time TV programming—the detective drama. Today's Blue Bloods, set in New York, starring Donnie Wahlberg and Marissa Ramirez, continues TV's original detective format.

"In the beginning, people would call after a program and say in tones of amazement that they had seen you. 'I'm out here in Bethesda, and the picture's wonderful," Brinkley said. "They weren't interested in anything you said. They were just interested in the fact that you had been on their screen in their house."

At first, network TV news reached only the East Coast because there was no national hookup to deliver television across the country. By 1948, AT&T's coaxial cable linked Philadelphia with New York City and Washington, D.C. The 1948 political conventions were held in Philadelphia and broadcast to 13 eastern states. When the 1952 conventions were broadcast, AT&T's national coaxial hookups joined 108 stations across the country.

CBS had developed a strong group of radio reporters during World War II, and by 1950 many of them had moved



The talk show is a very profitable TV program format. CBS announced in 2015 that Stephen Colbert (left) would succeed current Late Night host David Letterman (right), shown together in 2015 on The Kennedy Center Honors. The Tonight Show, which has been on the air since 1954, is TV's longestrunning late night talk show.

to the new medium. CBS News also made a practice, more than the other networks, of using the same reporters for radio and television news. The major early news figure at CBS was Edward R. Murrow, who, along with David Brinkley at NBC, created the early standards for broadcast news. (See Impact/Profile, "Edward R. Murrow (1908-1965) Sets the Standard for Broadcast News," p. 154.)

Public affairs programs like Murrow's See It Now continued to grow along with network news, and in 1956 NBC teamed David Brinkley with Chet Huntley to cover the political conventions. The chemistry worked, and after the convention, NBC put Huntley and Brinkley together to do the evening news, The Huntley-Brinkley Report. Brinkley often called himself "the other side of the hyphen."

Entertainment Programming

Early television entertainment also was the same as radio with pictures: It offered variety shows, situation comedies, drama, Westerns, detective stories, Hollywood movies, soap operas and quiz shows. The only type of show television offered that radio did not (besides movies, of course) was the talk show. (However, radio eventually created call-in programs, radio's version of the TV talk show.)

IMPACT

Profile

Edward R. Murrow (1908–1965) Sets the Standard for Broadcast News

By Theodore H. White

Note: Edward R. Murrow had established a reputation for excellence as a CBS radio news broadcaster when he migrated to television news in 1951. In this profile, veteran journalist Theodore H. White outlines Murrow's broadcast career and its impact on television audiences.

It is so difficult to recapture the real Ed Murrow from the haze that now shrouds the mythical Ed Murrow of history.

Where other men may baffle friends with the infinite complexity of their natures, Ed was baffling otherwise. He was so straightforward, he would completely baffle the writers who now unravel the neuroses of today's demigods of television. When Ed was angry, he bristled; when he gave friendship, it came without withholding.

He could walk with prime ministers and movie stars, GIs and generals, as natural in rumpled GI suntans as in his diplomatic homburg. But jaunty or somber, to those of us who knew him he was just plain old Ed. In his shabby office at CBS cluttered with awards, you could loosen your necktie, put your feet up and yarn away. The dark, overhanging eyebrows would arch as he



In the 1950s, Edward R. Murrow established a very high standard for TV news. Murrow is shown here in the 1950s on the CBS set.

punctured pretension with a jab, the mouth would twist quizzically as he questioned. And then there were his poker games, as Ed sat master of the table, a cigarette dangling always from his lips—he smoked 60 or 70 a day—and called the bets.

Then—I can hear him now—there was the voice. Ed's deep and rhythmic voice was compelling, not only for its range, halfway between bass and baritone, but for the words that rolled from it. He wrote for the ear—with a cadence of pauses and clipped, full sentences. His was an aural art but, in Ed, the art was natural—his inner ear composed a picture and, long before TV, the imagination of his listeners caught

the sound and made with it their own picture.

We remember the voice. But there was so much more to Ed. He had not only a sense of the news but a sense of how the news fit into history. And this sense of the relation of news to history is what, in retrospect, made him the great pioneer of television journalism. . . .

He is very large now, for it was he who set the news system of television on its tracks, holding it, and his descendants, to the sense of history that give it still, in the schlock-storm of today, its sense of honor. Of Ed Murrow it may be said that he made all of us who clung to him, and cling to his memory still, feel larger than we really were.

Excerpted from "When He Used the Power of TV, He Could Rouse Thunder," TV Guide 34, no. 3 (Jan. 18, 1986), pages 13–14. Reprinted by permission of Heyden White Rostow and David F. White.

VARIETY SHOWS. The best radio stars jumped to the new medium. Three big variety show successes were Milton Berle's Texaco Star Theater, The Admiral Broadway Revue (later Your Show of Shows) with Imogene Coca and Sid Caesar and Ed Sullivan's Toast of the Town (later The Ed Sullivan Show). These weekly shows featured comedy sketches and appearances by popular entertainers. The Ed Sullivan Show, for example, is where most Americans got their first glimpse of Elvis Presley and the Beatles. All of the shows were done live.

The time slot in which these programs were broadcast, 7 to 11 p.m., is known as *prime time*. Prime time simply means that more people watch television during this period than any other, so advertising during this period costs more. Berle's 8 p.m. program on Tuesday nights often gathered 85 percent of the audience. Texaco Star Theater became so popular that one Laundromat installed a TV set and advertised, "Watch Berle while your clothes twirl."

SITUATION COMEDIES. Along with drama, the situation comedy (sitcom) proved to be one of TV's most durable types of programs. The situation comedy established a regular set of characters in either a home or work situation. I Love Lucy, starring Lucille Ball and Desi Arnaz, originated from Los Angeles because the actors wanted to live on the West Coast. In 1951, Ball began a career as a weekly performer on CBS that lasted for 23 years.

In 1960, CBS launched The Andy Griffith Show, which followed the adventures of widower and Mayberry sheriff Andy Taylor, who was raising his young son. It ran for eight seasons and is still shown today on the TV Land cable television network. Modern Family and The Big Bang Theory are examples of current situation comedy successes.

DRAMA. The Loretta Young Show offered noontime drama—broadcast live—every day in the 1950s. The Hallmark Hall of Fame established a tradition for high-quality, live dramatic presentations. For many years, TV dramas were limited to one- or two-hour programs. But in the 1970s, encouraged by the success of Alex Haley's *Roots*, which dramatized Haley's search for the story of his African ancestry, television began to broadcast as many as 14 hours of a single drama over several nights. Today, the series *The* Good Wife is an example of a popular prime-time drama.

WESTERNS. TV went Western in 1954, when Jack Warner of Warner Bros. signed an agreement with ABC to provide the network with a program called Cheyenne. The outspoken Warner had openly criticized TV's effect on the movie business, but when ABC asked Warner to produce programs for them, Warner Bros. became the first movie company to realize that the studios could profit from television. Westerns are the only early TV format that isn't popular today.

DETECTIVE SHOWS. Dragnet, starring Jack Webb as Sergeant Friday, was an early TV detective series, starting in 1951 and running for eight seasons. The detective genre

became a TV staple: Dragnet's successors today are programs like Blue Bloods.

MOVIES. The movie industry initially resisted the competition from TV, but then it realized there was money to be made in selling old movies to TV. In 1957, RKO sold 740 pre-1948 movies to television for \$25 million. The other studios followed. Through various distribution agreements, movie reruns and movies produced specifically for television were added to television's program lineup.

SOAP OPERAS. Borrowed from radio serials, soap operas filled morning television programming. Today, game shows and reruns are more popular choices, but some soaps still survive. Soap operas (telenovelas) also are an important element of today's Spanish-language television.

TALK SHOWS. Sylvester "Pat" Weaver (actress Sigourney Weaver's father) created and produced television's single original contribution to programming: the talk show. Weaver's Tonight Show (originally Jerry Lester's Broadway Open House) first appeared in 1954. Through a succession of hosts from Lester to Steve Allen to Jack Paar to Johnny Carson to Jay Leno, Conan O'Brien and Jimmy Fallon, The Tonight Show has lasted longer than any other talk show on television. Another modern-day successor of the late-night talk show format is, of course, Late Night with David Letterman. Letterman was replaced in 2015 by comedian Stephen Colbert.

QUIZ SHOWS. In the mid-1950s, all three TV networks introduced guiz shows, on which contestants competed with each other for big-money prizes. Soon, the quiz shows were mired in controversy because of charges that the contestants had been given answers.

Quiz Shows Bring Ethics Scandals

Sponsored by Revlon, CBS's The \$64,000 Question premiered June 7, 1955. Contestants answered questions from a glass "isolation booth." Successful contestants returned in succeeding weeks to increase their winnings, and Revlon advertised its Living Lipstick. By September, the program was drawing 85 percent of the audience, and Revlon had to substitute an ad for another product because its factory supply of Living Lipstick had completely sold out.

As the most popular quiz show on early television, The \$64,000 Question engendered imitation: Treasure Hunt, Giant Step and Twenty-One. Winnings grew beyond the \$64,000 limit; Charles Van Doren won \$129,000 on

Prime Time The TV time period from 7 to 11 p.m. when more people watch TV than at any other time.

Situation Comedy A TV program that establishes a regular cast of characters typically in a home or work situation. Also called a sitcom.



Charles Van Doren won \$129,000 on the quiz show *Twenty-One*, facing contestant Herb Stempel. Contestants appeared in isolation booths (where Van Doren is shown in this sequence of four photos), allegedly to keep them from hearing answers from the audience. When they later admitted that the show's producers fed them the answers beforehand, Van Doren and Stempel became central figures in the 1950s quiz show ethics scandals. Their story was dramatized in the 1994 movie *Quiz Show*.

Twenty-One. In the fall of 1955, CBS replaced Murrow's See It Now with a quiz program.

Sponsors produced many network quiz shows like *The \$64,000 Question* for the networks, and these programs usually carried the sponsor's name. In the 1958–1959 quiz show scandals, Revlon was implicated when a congressional subcommittee investigated charges that the quiz shows were rigged to enhance the ratings. Charles Van Doren admitted before the subcommittee that *Twenty-One*'s producer had fed him the answers. Staff members from other quiz shows confirmed Van Doren's testimony.

The quiz show scandals caused the networks to reexamine the relationship between advertisers and programs. Before the scandals, advertisers and their agencies produced one-quarter to one-third of network programming. As a result of the quiz show scandals, the networks turned to other sources, such as independent producers, for their programming.

By the late 1960s, advertisers provided less than 3 percent of network programming, and soon advertisers provided no network shows. The networks programmed themselves. They also used reruns of newly acquired studio movies to replace the quiz shows, but quiz shows resurfaced in 1983 with *Wheel of Fortune* and, in the 1990s, *Who Wants to Be a Millionaire?*

Ratings Target the Audience

After the quiz show scandals, the networks were criticized for being motivated only by ratings. Ratings give sponsors information about the audience they're reaching with their advertising—what advertisers are getting for their money.

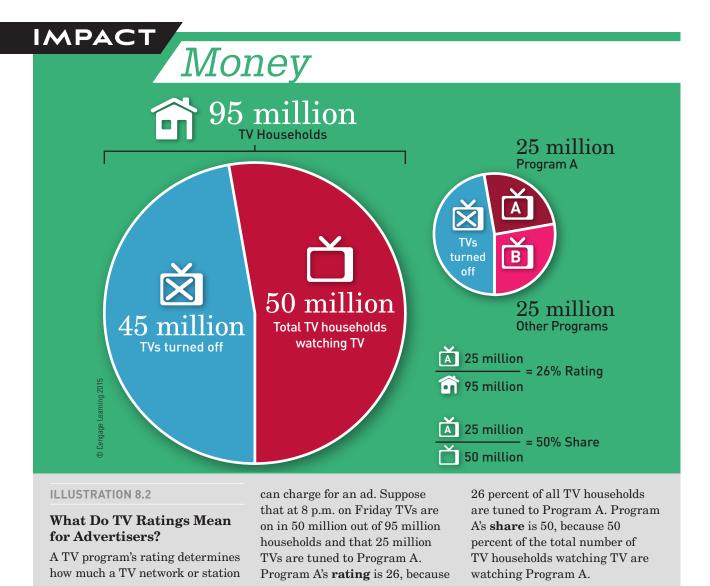
By the late 1950s, The Nielsen Company dominated the television ratings business. The national Nielsen ratings describe the audience to advertisers; based on the Nielsens, advertisers pay for the commercial time to reach the audiences they want.

Today, Nielsen provides two types of numbers, known as rating and share. The *rating* is a percentage of the total number of households with television sets. If there are 95 million homes with TV sets, for example, the rating shows the percentage of those sets that were tuned in to a specific program. The share (an abbreviation for share-of-audience)

Rating The percentage of the total number of households *with TV sets* tuned to a particular program.



Live sports events are among the most profitable types of TV programming today because of their high audience ratings. In 2015, CBS Sports broadcast The Masters from Augusta, Ga., when Jordan Spieth, 21, became one of the event's youngest winners.



compares the audience for one show with the audience for another. **Share** means the percentage of the audience with TV sets turned on that is watching each program.

For example, if TV sets in 50 million homes were turned on at 8 p.m. on Friday night, and 25 million homes were tuned to Program A, that program would have a rating of 26 (25 million divided by 95 million, expressed as a percentage) and a share of 50. (See Illustration 8.2, "What Do TV Ratings Mean for Advertisers?" above.)

The most concentrated ratings periods for local stations are "sweeps" months-February, May and November. (Ratings are taken in July, too, but the numbers are not considered accurate because so many people are on vacation.) The sweeps provide an estimate of the local TV audience, and advertisers use that information when they decide where to place their commercials.

Sweeps are the months when the ratings services gather their most important ratings, so the networks and local stations often use these important months

to showcase their best programs. This is when you are most likely to see a new one-hour episode of a popular series, for example, or a lavishly produced special.

Today's Nielsen ratings work essentially the same as they did in the 1950s, except that the Nielsens now deliver very specific information on demographics—age, occupation and income, for instance—and Nielsen can deliver daily ratings information to any client willing to pay for it.

Share The percentage of the audience *with TV sets* turned on that is watching a particular program.

Sweeps The months when TV ratings services gather their most important ratings—February, May and November.

Demographics Data about consumers' characteristics, such as age, occupation and income level.

In 2007, The Nielsen Company expanded its tracking service to count people who watch TV outside the home, in places like bars, restaurants, airports, offices and retail stores. Nielsen then announced in 2013 that it would also track mobile viewing. "Nielsen has a mandate to follow the video wherever it goes," said Sara Erichson, executive vice president for client services at Nielsen Media Research North America.

Advertisers use this ratings information to target their most likely consumers. Nike shoes might create a new advertising campaign for the Super Bowl, for instance, and Nielsen could tell Nike, judging from previous Super Bowls, the projected demographics of the people who watch the game.

A major flaw in the ratings system today, critics contend, is the way the broadcast community religiously follows and uses ratings to determine programming, producing what has succeeded before rather than introducing new ideas.

Newton Minow Criticizes TV as a "Vast Wasteland"

The 1950s were a trial period for television, as the networks and advertisers tested audience interest in various types of programming. Captured by the miracle that television offered, at first audiences seemed insatiable; they watched almost anything that TV delivered. But in the 1960s, audiences became more discriminating and began to question how well the medium of television was serving the public.

Once it established itself throughout the country, television needed a public conscience. That public conscience was Newton Minow. An unassuming soothsayer, Minow was named chairman of the Federal Communications Commission in 1961 by newly elected President John F. Kennedy. On May 9, 1961, speaking to the National Association of Broadcasters in his first public address since his appointment, Minow told broadcast executives what he believed were the broadcasters' responsibilities to the public. According to Minow, in his book *Equal Time*, he told the broadcasters:

Your license lets you use the public's airwaves as trustees for 180 million Americans. The public is your beneficiary. If you want to stay on as trustees, you must deliver a decent return to the public—not only to your stockholders....

Your industry possesses the most powerful voice in America. It has an inescapable duty to make that voice ring with intelligence and with leadership. In a few years this exciting industry has grown from a novelty to an instrument of overwhelming impact on the American people. It should be making ready for the kind of leadership that newspapers and magazines assumed years ago, to make our people aware of their world.

Ours has been called the jet age, the atomic age, the space age. It is also, I submit, the television age. And just as history will decide whether the leaders of today's world employed the atom to destroy the world or rebuild it for mankind's benefit, so will history decide whether today's broadcasters employed their powerful voice to enrich the people or debase them.

Minow then asked his audience of broadcast station owners and managers to watch their own programs. He said that they would find a "vast wasteland," a phrase that resurfaces today during any critical discussion of television.

Public Television Finds an Audience

The concept of educational television has been alive since the 1950s, when a few noncommercial stations succeeded in regularly presenting public service programs without advertisements, but the shows were low budget.

The educational network NET (National Educational Television) emerged in 1963 to provide some national programming (about ten hours a week), sponsored mainly by foundations, with some federal support. Then in 1967, the Ford Foundation agreed to help pay for several hours of live evening programming.

Also in 1967, the Carnegie Commission on Educational Television released its report *Public Television: A Program for Action*, which included a proposal to create the Corporation for Public Broadcasting (CPB). CPB would collect money from many sources—including the enhanced federal funds the Carnegie report suggested—and disburse the money to the stations.



PBS began broadcasting as National Educational Television in 1963. Today *PBS Newshour* provides an hour-long evening news broadcast, featuring Judy Woodruff, as an alternative to the traditional TV network evening news. PBS receives some government funding but relies mainly on private donations and corporate sponsors.



In 1962, technicians work on the Telstar I communications satellite, which enabled the first transatlantic satellite broadcast. Today's modern satellites, the successors to Telstar I, make television delivery systems like DirecTV possible.

President Lyndon Johnson's administration and several foundations added money to CPB's budget. The Public Broadcasting Service (PBS) was created to distribute programs. The extra money underwrote the creation of programs like Sesame Street and The French Chef. PBS *Newshour* became a weeknight staple. PBS also began to buy successful British television programs, which were broadcast on Masterpiece Theatre. PBS programs actually started to show up in the ratings.

In 1995, members of Congress called for the "privatization" of public television, with the idea that eventually PBS would become completely self-sustaining. Today, the CPB, which oversees public television, still receives funding from the federal government. Local funding supplements this government underwriting, but within the past 10 years, public donations to public television have been declining. This decline in funding has led public broadcasters to seek underwriting from more corporate donors, but companies accustomed to advertising on commercial networks are reluctant to advertise on a network that commonly attracts less than 3 percent of the national audience.

For the first time, public television began to pay attention to ratings. This attention to an audience of consumers means the pressure is building on public television executives to make each program profitable.

The FCC began liberalizing its rules for commercial announcements on public television in 1981. Now, corporate sponsors often make announcements, including graphics and video, at the beginning and the end of PBSproduced programs. The announcements often look the same as advertisements on commercial television. Critics of this commercialization of public television are calling for more government funding, but Congress seems unwilling to expand its underwriting. Public television is continuing to reinvent itself to try to stay relevant to today's audience.

Satellites Make Transatlantic TV and Live Broadcasts Possible

On July 10, 1962, Telstar I sent the first transatlantic satellite broadcast. Before Telstar, copper cable linked the continents, film footage from overseas traveled only by plane and in most homes a long-distance telephone call was a special event. Today, Telstar's descendants orbit at a distance of more than 22,000 miles. A single modern communication satellite can carry more than 30,000 telephone calls and 3 television channels. (Modern satellites make program services like CNN and satellite systems like DirecTV possible.)

By 1965, all three networks were broadcasting in color. Television demonstrated its technological sophistication in December 1968 with its live broadcast from the Apollo spacecraft while the spacecraft circled the moon, and seven months later television showed Neil Armstrong stepping onto the moon.

Television Changes National and Global Politics

Just as radio was first an entertainment medium and then expanded to cover important news events, television first established itself with entertainment and then developed a serious news presence. Franklin D. Roosevelt had been the first president to understand and use radio, and John F. Kennedy became the country's first television president. Some of Kennedy's predecessors had appeared on television, but he instinctively knew how to use television to promote his agenda.

Observers attributed Kennedy's 1960 presidential victory partly to his success in the televised presidential debates with Richard Nixon. Kennedy also was the first president to hold live televised news conferences. In July 1962, he oversaw the launch of the first communications satellite, Telstar I. One year later news organizations used that same satellite technology to broadcast live coverage of the news events following President Kennedy's assassination on November 22, 1963.

Television received credit for uniting the nation with its news coverage of the Kennedy assassination, but it also was blamed for dividing it. President Lyndon Johnson, beleaguered by an unpopular war in Vietnam, used television to make an announcement to the nation in 1968 that he would not run for a second term.



Originally a very small part of television programming, television news today gives audiences access to 24-hour coverage of global events, such as the Boston blizzard on February 15, 2015.

Johnson's successor, President Richard Nixon, had always been uncomfortable with the press. The Nixon administration often attacked the press for presenting perspectives on world affairs that the administration did not like. Upset with the messages being presented, the Nixon administration battled the messenger, sparking a bitter public debate about the role of a free press (especially television) in a democratic society.

Ironically, television's next live marathon broadcast chronicled the ongoing investigation of the Nixon presidency—Watergate. The Watergate scandal began when burglars broke into the offices of the Democratic Party's national headquarters in the Watergate complex in Washington, D.C., on June 17, 1972. Some of the burglars had ties to President Nixon's reelection committee as well as to other questionable activities originating in the White House.

In the months following the break-in, the president and his assistants sought to squelch the resulting investigation. Although Nixon denied knowledge of the break-in and the cover-up, the U.S. Senate hearings about the scandal, televised live across the country, created a national sensation. (See also Chapter 12.) Eventually, faced with the prospect of impeachment, Nixon announced his resignation—on television—on August 8, 1974.

In 1987, television repeated its marathon coverage of an important national investigation with the Iran-Contra hearings, a congressional investigation of the Reagan administration's role in illegally selling weapons to Iran and using the money to secretly finance Nicaraguan rebels, called contras.

Television news has matured from its early beginnings as a 15-minute newscast to today's 24-hour international coverage of global events. On September 11, 2001, U.S.

TV network news offered nonstop coverage of the terrorist events at New York's World Trade Center, at the Pentagon and in rural Pennsylvania. Two years later, TV networks brought viewers even closer to events when TV reporters and photographers sent live battlefield images and stories during the Iraq War.

And in February 2015, news coverage of devastatingly cold weather on the nation's East Coast brought residents' shared hardship to a worldwide audience. National events instantly become global events because of TV's immediate international reach.

Mergers Affect Station Ownership

The Telecommunications Act of 1996 (see Chapter 14) used a station's potential audience to measure ownership limits. The Act allowed one

company to own TV stations that reach up to 35 percent of the nation's homes. Broadcasters also are no longer required, as they once were, to hold onto a station for 3 years before selling it. Today, stations may be sold as soon as they are purchased.

In 1999, the Federal Communications Commission (FCC) adopted new regulations that allow media companies to own two TV stations in one market, as long as eight separately owned TV stations continue to operate in that market after the merger. The rules said the four top-rated stations in one market cannot be combined under the same ownership, but a station that is among the four top-rated stations can combine with one that is not in the top four.

In 2003, the FCC relaxed ownership rules even further, leaving few restrictions on network ownership. As with radio, fewer companies are putting together larger and larger groups of TV stations. Today, most local TV stations are not owned by local companies, as they once were. Television is *concentrating* ownership, but it is also *shifting* ownership, as stations are bought and sold at an unprecedented rate. This has introduced instability and change to an industry that until 1980 witnessed very few ownership turnovers.

TV Promotes Professional Sports

Sports is one of TV's most profitable types of television programming because most sports events are broadcast live, and viewers tend to watch the entire program, including commercials. In 1964, CBS paid \$28 million for television rights to the 1964-1965 National Football League (NFL) games. In 1990, the networks paid \$3.6 billion to broadcast NFL football.

In 2012, ESPN (owned by the Walt Disney Company) spent \$5.6 billion for an 8-year contract to carry Major League Baseball on ESPN as well as for radio, international and digital rights to the games. In 2014, NBC Universal paid \$7.75 billion for broadcast rights to the six Olympic games from 2022 to 2032.

Television licensing fees fund most of the cost of organized sports today. Televised sports have become spectacularly complex entertainment packages, turning professional and college athletes as well as sports commentators into media stars. The expansion of sports programming beyond the networks to cable channels such as ESPN means even more sports programming choices for viewers and big payoffs for American sports teams.

Critics Challenge the Accuracy of TV Ratings

People meters, first used in 1987 by The Nielsen Company to record television viewing, gathered data through a 4-inch-by-10-inch box that sat on the television set in metered homes. People meters monitored the nation's Nielsen families (about 4,000 of them, which Nielsen says are a cross section of American viewers), and the results of these recorded viewing patterns became the ratings system that is the basis for television advertising rates.

Nielsen family members each pushed an assigned button in the set-top box when they began to watch television. The system's central computer, linked to the home by telephone lines, correlated each viewer's number with information about that person stored in its memory.

Network ratings plunged after people meters were introduced as a ratings system, and the networks complained that the people meters underestimated specific audiences, especially African Americans and Latinos.

Nielsen recently changed to a more sophisticated measurement system that electronically monitors traditional as well as mobile audiences, but criticism of the ratings' accuracy persists. Still, Nielsen remains the only company in the United States that offers TV audience measurement.

Cable and Satellite Expand Deliverv

Today's cable giants, ESPN (Entertainment and Sports Programming Network) and CNN, are descendants of America's first cable TV system, which was established in Pennsylvania and Oregon to bring TV signals to rural areas that couldn't receive an over-the-air signal. Soon, this community antenna television (CATV) system spread to remote areas all over the country where TV reception was poor.

By 1970, there were 2,500 CATV systems in the United States, and commercial broadcasters were getting



"We're all together watching television, but we're not all watching television together."

nervous about what they called "wired TV." Cable operators were required by the FCC to carry all local broadcast programming, and programs often were duplicated on several channels. The FCC also limited the programs that cable could carry. One FCC ruling, for example, said that movies on cable had to be at least 10 years old.

Believing that cable should be able to offer its own programming, Home Box Office (owned by Time Warner) started operating in Manhattan in 1972, offering a modest set of programs. Ted Turner's Turner Network Television (TNT) first relayed programs by satellite in 1976, and in 1979 Turner started Cable News Network (CNN). Today, more than 125 different program services, ranging from sports on ESPN to 1930s and 1940s movies on American Movie Classics (AMC), are available to cable subscribers.

In 1982, the FCC authorized direct broadcast satellite (DBS), making direct satellite-to-home satellite transmission possible. In 1994, a company called DirecTV began offering services directly to the home by satellite for a monthly fee that is about the same as cable. Cable and satellite program delivery systems now are collectively called **subscription television** services.

CATV Community antenna television or cable television.

DBS Direct broadcast satellite.

Subscription Television A new term used to describe consumer services delivered by cable and satellite program delivery.

Cable and satellite programming, which divides viewers into smaller segments than the networks, makes it easier for advertisers to target a specific audience. Programs such the award-winning *Mad Men* series, for example, which ran for eight seasons on AMC, made the once-obscure channel very successful because of the upscale audience the program attracted.

Today, the number of satellite and cable subscribers has stopped growing because of the cost to subscribe and because many popular cable and satellite programs are available on the Internet.

Some consumers have abandoned cable, satellite and even antenna program delivery altogether and instead watch TV solely through Internet streaming. In 2013, The Nielsen Company began tracking this trend, labeling people in this group "**Zero TV consumers**." Nielsen reported there were 5 million Zero TV households in 2013, up from 2 million in 2007.

"The Zero TV segment is increasingly important because the number of people signing up for traditional TV service has slowed to a standstill," reports *The New York Times*. "Nielsen's study suggests that this new group may have left traditional TV for good. While three-quarters actually have a physical TV set, only 18 percent are interested in hooking it up through a traditional pay TV subscription."

Television at Work

A typical television station has eight departments:

- 1. Sales
- **2.** Programming (which includes news as well as entertainment)
- 3. Production
- 4. Engineering
- 5. Traffic
- 6. Promotion
- 7. Public affairs
- 8. Administration

People in the *sales* department sell the commercial slots for the programs. Advertising is divided into national and local sales. Advertising agencies, usually based on the East Coast, buy national ads for the products they handle. An ad agency may buy time on a network for the Ford Motor Company, for instance, for a TV ad that will run simultaneously all over the country.

But local Ford dealers, who want you to shop at their showroom, buy their ads directly from the local station. These ads are called local (or spot) ads. For these sales, salespeople (called account executives) at each station negotiate packages of ads based on their station's advertising rates. These rates are a direct reflection of the station's position in the ratings.

The *programming* department selects the shows that you will see and develops the station's schedule. Networkowned stations, usually located in big cities (KNBC in Los Angeles, for example), are called *O & Os*, which stands for "owned and operated." O & Os automatically carry network programming. *Affiliates* are stations that carry network programming but are not owned by the networks. The networks pay affiliates to carry their programming, for which the networks sell most of the ads and keep the money. An affiliate is allowed to insert into the network programming a specific number of local ads, for which the affiliate keeps the income.

Because affiliates can make money on network programming and don't have to pay for it, many stations choose to affiliate themselves with a network. When they aren't running what the network provides, affiliates run their own programs and keep all the advertising money they collect from them.

Some of the nation's commercial TV stations operate as independents. Independent stations must buy and program all their own shows, but independents also keep all the money they make on advertising. Independents run some individually produced programs and old movies, but most of their programming consists of reruns such as *Frasier* and *Everybody Loves Raymond* that once ran on the networks. Independents buy these reruns from program services called *syndicators*.

Local news usually makes up the largest percentage of a station's locally produced programming. In some large markets, such as Los Angeles, local nightly news programs run as long as two hours.

The *production* department manages the programs the station creates in-house. This department also produces local commercials for the station. The *engineering* department makes sure all the technical aspects of a broadcast operation are working: antennas, transmitters, cameras and any other broadcast equipment. The *traffic* department

Zero TV Consumers People who do not use a traditional TV set to watch programs via antenna, cable or satellite, but instead access TV programs through video streaming on the Internet.

O & Os TV stations that are owned and operated by the networks.

Affiliates Stations that use network programming but are owned by companies other than the networks.

Syndicators Services that sell programming to broadcast stations and cable.



The live broadcast of President Obama's election night victory on November 4, 2008, captured 70 million viewers, a record number for a presidential election night.

integrates the advertising with the programming, making sure that all the ads that are sold are aired when they're supposed to be. Traffic also handles billing for the ads.

The promotion department advertises the station—on the station itself, on billboards, on radio and in the local newspaper. These people also create contests to keep the station visible in the community. The public affairs department helps organize public events, such as a fun run to raise money for the local hospital. Administration handles the paperwork for the station paychecks and expense accounts, for example.

Audiences Drive TV Programming

Today's most-watched television programs are situation comedies and sports. Super Bowls generally grab about half the homes in the United States. More than 120 million people tuned in for the final episode of the situation comedy M*A*S*H in 1983, making it the highest-rated television program ever. In 1993, the final episode of the sitcom Cheers garnered

an audience of 80 million, and today network comedies like The Big Bang Theory continue to lead in TV audience

In 2008, the surprise ratings leader was President-elect Barack Obama. More than 70 million people watched his election victory the night of November 4, 2008, a record number of viewers for a presidential election night.

Two developments promise to affect the television industry over the next decade: the shrinking role of the networks and the demand for more diverse programming to attract new audiences.

The Networks' Shrinking Role

Advertisers always have provided the economic support for television, so in 1986 the networks were disturbed to see the first decline in advertising revenues in 15 years. New and continuing developments—such as cable, satellite broadcast, DVDs, streaming—have turned the television set into a smorgasbord of choices. Audiences—and advertisers—began to desert the networks, and network ratings declined as a result.

Today, because there are so many sources of TV programming available, even the most popular shows attract a relatively small percentage of the overall audience.

The networks' share of the audience for the evening news also is shrinking. The story is familiar, paralleling the decline in radio listening in the late 1940s when television first replaced radio and then television began competing with itself. Today more stations and more sources of programming mean the TV networks must expand their audience beyond the traditional prime-time evening time slot to stay profitable.



Online retailer Amazon Studios produced a new streaming Web series called Transparent, which premiered in Los Angeles on September 15, 2014.

Demand for Diverse Programming

During the summer of 2005, Univision, the nation's largest Spanish-language network, drew more prime-time viewers in the 18–34 age group than any of the traditional broadcast networks—NBC, CBS, ABC and Fox. This was the first time Spanish-language TV had beaten the networks for this lucrative young audience. The main draw was *telenovelas*, or Spanish-language soap operas.

This Spanish-language lead in prime time had been building for several years, as the nation's Latino population increased. According to *The New York Times*, "Market researchers say that Latinos—no matter their age or dominant language—tend to tune in to Spanish-language television for

two main staples: newscasts, because networks like Univision cover Latino issues and Latin America with more breadth and resources than English-language networks, and telenovelas, which function like a kind of cultural touchstone.

"Whether you're U.S.-born and you're introduced to it by a parent or grandparent or whether you're foreign-born and you grew up with it, it's the kind of thing that's inherent in the culture," multicultural marketing consultant Derene Allen told *The Times*. As traditional audiences shrink, and advertisers try to find new ways to sell their products, Spanish-language TV is emerging as one promising audience market.

Video programs produced solely for Internet distribution also offer a new avenue to target audiences with edgier, timely subjects. In 2014, for example, online retailer Amazon launched Fire TV, an electronic device with access to Amazon's extensive video library, including a new streaming Web series produced by Amazon Studios called *Transparent*. The show explores a family headed by Maura Pfefferman (played by Jeffrey Tambor), who is in the midst of changing his identity from male to female. For his portrayal, Tambor won a Golden Globe in 2015, an acknowledgment that Web TV programming could compete for viewers with traditional TV.

Digital Technology Broadens TV's Focus

When technological developments move like a rocket, as they have in the past decade, program delivery becomes easier and less expensive. New technologies have brought more competition.



At the 2015 Consumer Electronics Show, manufacturers promote a curved-screen, 65-inch 4K TV, called ultrahigh-definition.

Several new delivery systems and products have been developed to bring more choices to consumers than ever before—from the size of the screen to the clarity of the picture—and to change further the way people use television.

Digital Video Recorders

Digital video recorders (*DVRs*), available since the 1990s, download programming from any program service (including the broadcast networks and satellite and cable programmers). This allows viewers to decide what they want to watch and when, a practice called *time-shifting*, which makes consumers' viewing habits much more difficult for advertisers to track accurately.

High-Definition Television, 3-D and 4K Screens

A traditional television picture scans 525 lines across the screen. *High-definition television (HDTV)* scans at least 1,125 lines. CBS first demonstrated HDTV in the U.S. in 1982. HDTV, which offers a wider, sharper digital picture and better sound, requires more spectrum space than conventional television signals.

DVR Digital video recorders.

Time-Shifting Recording a television program on a DVR to watch at a more convenient time.

High-Definition Television (HDTV) The industry standard for digital television transmission as of 2009; it provides a picture with a clearer resolution than earlier TV sets.

IMPACT

Convergence

Netflix Is Betting Its Future on Exclusive Programming

By Emily Steel

LOS GATOS, Calif.—It is April 9 [2015] just before midnight in the war room of Netflix's headquarters here, where the smell of popcorn fills the air and a team of engineers, social media experts and other specialists starts counting down the seconds until the new Daredevil superhero series goes live on the streaming service.

At the stroke of 12, applause breaks out in the room. Flutes of Champagne are passed around as the Netflix team checks that the series is available for binge watching across devices in more than 50 countries around the world

Daredevil is the 17th Netflix original series to make its debut [in 2015], representing a bold bet by the company to significantly increase its investment in exclusive programming. The company is planning 320 hours of original programming in 2015, about three times what it offered [in 2014].

Reed Hastings, Netflix's chief executive, is a connoisseur of them all. Hastings wants to position the company as the entertainment world undergoes a digital revolution.

Traditionally, television networks needed to stand for something to carve out an audience, he said, whereas the Internet allows brands to mean different things to different people because the service can be personalized for individual viewers. "We want the original content to be as broad as human experience."

The emphasis on original content is an extension of Netflix's longterm view that the Internet is replacing television, that apps are replacing channels and that screens are

proliferating, Mr. Hastings said.

"We've had 80 years of linear TV, and it's been amazing, and in its day the fax machine was amazing," he said. "The next 20 years will be this transformation from linear TV to Internet TV."

But some analysts have expressed concern about the company's longterm prospects for more growth in the United States. Netflix also faces a new wave of intense competition in the U.S. as a number of tech and media companies introduce streaming services. That includes HBO, which recently started HBO Now, which does not require a cable or satellite subscription.



Reed Hastings, Netflix's CEO, says the company plans to compete with HBO by producing original series available primarily by video streaming on the Web.

> Mr. Hastings said that he welcomed the new streaming entrants. Rather than a competitive threat, they represent the realization of the benefits of on-demand streaming television that allows people to watch shows on their own schedule and on the devices of their choosing, he said.

"It will be like the Yankees and the Red Sox," Mr. Hastings said. "I predict HBO will do the best creative work of their lives in the next 10 years because they are on war footing. They haven't really had a challenge for a long time, and now they do. It's going to spur us both on to incredible work."

Excerpted from Emily Steel, "Netflix Is Betting Its Future on Exclusive Programming," April 19, 2015, nytimes.com.

Digital TV also makes it easier for manufacturers to combine the functions of TV and the functions of a computer in the same piece of equipment. HDTV became the national industry standard in 2009.

In 2010, major television manufacturers started selling 3-D TVs, and several programmers announced plans to create 3-D shows to feed the new market, but by 2015 interest in 3-D had faded, just like interest in 3-D movies.

In 2014, hoping that consumers could be convinced to upgrade to an even better picture than HDTV, manufacturers introduced 4K screens, which offer a picture with twice the resolution as HDTV. The new sets are called ultrahigh-definition TVs, but only programs produced in 4K can be viewed in the ultrahigh-definition format.

Streaming TV Brings a New Vision

Forecasts for the future of television parallel the forecasts for radio—a menu board of hundreds of programs and services available to viewers at the touch of a remote-control button. In the 1990s, regional telephone companies (abbreviated as *teleos*) rushed to merge with cable TV companies to form giant telecommunications delivery systems.

To try to maintain their audience dominance, the TV networks have invested heavily in satellite TV and Internet program services to develop the capability to deliver programs to screens as small as a cell phone, and these new financial powerhouses can spend large sums of money for research to reach the audiences they want.

In 2006, when Congress passed a law that required TV broadcasters to switch totally to digital signals by 2009, only about 60 percent of U.S. households were capable of receiving a digital TV signal, according to the Consumer Electronics Association. Today, digital television is the new national standard. Television audiences seem to welcome most new technologies, even seek them out. (See Impact/Convergence, "Netflix Is Betting Its Future on Exclusive Programming," p. 165.)

Digital technology makes high-quality television images available on screens as large as a wall and as small as a cell phone. HDTV and ultrahigh-definition TVs offer movie-quality pictures and CD-quality sound. Internet delivery offers programming that's mobile and can follow you wherever and whenever you want it.

And new players are entering the game. In 2012, Netflix offered a new original series, *House of Cards*, through its video streaming service, and in 2014 Amazon Studios announced it had signed several pilot TV programs for Internet distribution. In 2015, Netflix launched its 17th original series, with plans to produce 320 hours of original programming.

The definition of what we call "television" and "television program" is exploding. Lanny Smoot, an executive at Bell Communications Research, calls the future of television a *telepresence*. "This," he says, "is a wave that is not possible to stop."

Telcos An abbreviation for "telephone companies."

REVIEW, ANALYZE, INVESTIGATE

CHAPTER 8

Television Transforms Daily Life

- The word *television*, which once meant programs delivered by antennas through over-the-air signals, today means a *television screen*, where a variety of delivery systems bring viewers a diversity of programs.
- Many groups are concerned that, because of its pervasiveness, television influences the nation's values, habits and behavior.
- About 1,700 television stations operate in the United States. Three out of four of these are commercial stations and about half of U.S. stations are affiliated with a network.

TV Delivers an Audience to Advertisers

- More than any other media industry today, commercial television exists primarily as an advertising medium.
- A 30-second ad during Super Bowl 2015 cost an advertiser as much as \$4.5 million.

Visual Radio Becomes Television

• Guglielmo Marconi put sound on airwaves. Lee de Forest invented the Audion tube. Vladimir Zworykin turned an electronic signal into a visual image. Philo T. Farnsworth added the electronic scanner.

- The rivalry between David Sarnoff (RCA) and William S. Paley (CBS) is central to the early history of television.
- The ABC network was formed when the Federal Communications Commission (FCC) ordered David Sarnoff to sell one of his two networks (Red and Blue). The Blue network became ABC.

Television Outpaces Radio

- The first television news broadcasts were primitive compared to today's broadcasts. Television news, like radio news, developed its own standard of excellence, led by news pioneers Edward R. Murrow and David Brinkley.
- Most television entertainment programming was derived from radio.
- The only type of program that didn't come from radio was the talk show, which appeared on television first and then moved to radio. The situation comedy proved to be one of television's most durable types of programming.

Quiz Shows Bring Ethics Scandals

- A congressional investigation revealed that several 1950s TV quiz shows were rigged to enhance their ratings.
- The 1950s quiz show scandals caused the networks to eliminate advertiser-produced programming.
- Charles Van Doren, who admitted that he cheated, was a central figure in the quiz show scandals.

Ratings Target the Audience

- The Nielsen ratings determine the price that TV advertisers pay to air their commercials.
- TV audiences are measured as ratings and shares.

Newton Minow Criticizes TV as a "Vast Wasteland"

- In the 1960s, audiences grew more discriminating and began to question how well the medium of television was serving the public.
- An influential person who outlined TV's responsibility to its audience was then-FCC Chairman Newton Minow, who coined the phrase "vast wasteland" to describe television.

Public Television Finds an Audience

- National Educational Television (NET) is the predecessor of today's Corporation for Public Broadcasting (CPB).
- In 1981, the FCC loosened the rules for commercials on public television.

Satellites Make Transatlantic TV and Live Broadcasts Possible

- In 1962, Telstar I sent the first transatlantic satellite broadcast.
- Modern satellites make CNN and DirecTV possible.

Television Changes National and Global Politics

- In the 1960s, television drew criticism for the way it was perceived to influence politics and the dialogue about national issues.
- Television broadcast nonstop coverage of the Watergate hearings. President Nixon's resignation and investigations of the Iran-Contra scandal.
- In 2001, U.S. TV network news offered nonstop coverage of the terrorist attacks at New York's World Trade Center, at the Pentagon and in rural Pennsylvania.
- In 2003, the TV networks brought viewers even closer to events when TV reporters and photographers sent live battlefield images and stories during the Iraq War.
- In 2015, TV showed people around the world events surrounding the record-setting Boston blizzard.
- National events become global events because of TV's instant international reach.

Mergers Affect Station Ownership

- Deregulation, with relaxed ownership rules, means that instability, mergers and change have become major characteristics of the television industry.
- Today, most local TV stations are not owned by local companies, as they once were.

TV Promotes Professional Sports

- TV licensing fees fund most of the cost of the nation's college and professional sports.
- The expansion of sports programming beyond the networks to cable channels such as ESPN means bigger payoffs for American sports teams.

Critics Challenge the Accuracy of TV Ratings

- Network ratings plunged after The Nielsen Company introduced people meters as a ratings system.
- TV networks also must compete with the huge variety of program options vying for consumers' attention.
- Nielsen recently changed to a more sophisticated measurement system that monitors both traditional and mobile TV audiences, but criticism persists.

Cable and Satellite Expand Delivery

- Today's cable giants ESPN (Entertainment and Sports Programming Network) and CNN are descendants of America's first cable TV system, established in Pennsylvania and Oregon to bring TV signals to rural areas.
- This community antenna television (CATV) system spread to remote areas nationwide where TV reception was poor.
- By 1970, there were 2,500 CATV systems in the U.S.
- In 1982, the FCC authorized direct broadcast satellite (DBS), making direct satellite-to-home broadcasts possible.
- In 1994, DirecTV began offering satellite services to the

- Cable and satellite program delivery systems now are collectively called *subscription television* services.
- Today, the number of satellite and cable subscribers has stopped growing.
- Some consumers, labeled Zero TV households, have abandoned cable, satellite and even antenna program delivery altogether and instead watch TV solely through Web streaming.

Television at Work

- A typical TV station has eight departments: sales, programming, production, engineering, traffic, promotion, public affairs and administration.
- Many TV stations are affiliated with a network.

Audiences Drive TV Programming

- The most-watched TV programs are situation comedies and sports.
- Spanish-language networks draw increasing numbers of prime-time viewers.
- Amazon Studios produced the original streaming Web show *Transparent* in 2014. The show's star, Jeffrey Tambor, won a Golden Globe for his performance in its first year, an acknowledgment that Web TV programs could compete with traditional TV.

Digital Technology Broadens TV's Focus

- Several technological developments have changed the way programs are delivered to consumers, including digital video recorders, high-definition television and the Internet.
- HDTV offers better pictures, clearer sound and a flatter screen than traditional TV and became the national industry standard in 2009.
- Digital TV makes it easier for manufacturers to combine the functions of TV and the functions of a computer in the same TV set.
- In 2010, major television manufacturers started selling 3-D TVs, but by 2015 consumer interest in 3-D had faded.
- In 2015, trying to stimulate sales, TV manufacturers introduced 4K TV, offering a picture with twice the resolution of HDTV, called ultrahigh resolution.

Streaming TV Brings a New Vision

- Cable, satellite and Internet program services have developed the capability to deliver programs to screens as small as a cell phone.
- In 2012, Netflix offered a new original series, House of Cards, through its video streaming service, and in 2014 Amazon Studios announced it had signed several pilot TV programs for Internet distribution.

Key Terms

These terms are defined in the margins throughout this chapter and appear in alphabetical order with definitions in the Glossary, which begins on page 361.

Affiliates 162 CATV 161 DBS 161 Demographics 157 DVR 164 High-Definition Television (HDTV) 164 Network 152 0 & Os 162 Prime Time 155

Rating 156
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Time-Shifting 164
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Critical Questions

- **1.** Explain what media observer Jeff Greenfield means when he says, "To the television executive, the product [of television] is the audience."
- **2.** How did the quiz show scandals of the 1950s affect the relationship between advertisers and the networks? Is the relationship between advertisers and the networks different or the same today? Explain.
- **3.** Discuss the economic challenges facing public broadcasting and the various sources of funding on which individual public broadcast stations as well as CPB and PBS
- rely. How has public broadcasting responded to these challenges?
- **4.** Explain the role of the Nielsen ratings in television, including such factors as ratings accuracy, advertisers' dependence on ratings, the effect of ratings on programming and the emergence of the Zero TV household.
- **5.** Describe three ways that new technologies (such as Internet video streaming) affect the future of the television industry.

Working the Web

This list includes sites mentioned in the chapter and others to give you greater insight into the television business.

CBS Television

cbs.com

Originally known as the Columbia Broadcasting Network, CBS Television is the national commercial television broadcast network owned by the CBS Corporation. It provides entertainment, sports and news programming from the national network level to local CBS television stations throughout the U.S. as well as programming that can be accessed online.

Disney/ABC Television Group

disneyabcpress.com

Disney/ABC Television Group is comprised of The Walt Disney Company's entertainment and news television properties, owned television stations group and radio business. This includes ABC Studios, the ABC Owned Television Stations Group, and the ABC Television Network, which provides entertainment, news and kids programming to viewers via affiliated stations across the U.S.

HBO (Home Box Office)

hbo.com

HBO is the pay television programming division of Time Warner Inc. It offers programming via HBO and Cinemax to more than 127 million viewers throughout the world. In 2015, HBO introduced HBO Now, a stand-alone subscription-based service that offers streaming access to all of its programming.

Interactive Advertising Bureau (IAB) iab.net

Established in 1996 and headquartered in New York City, the IAB is composed of more than 650 media and technology companies that are "responsible for selling 86 percent of online advertising in the United States." The IAB lobbies on behalf of these companies in Washington, D.C., and around the country, making recommendations on standards and practices as well as conducting its own research on the interactive advertising industry.

National Association of Broadcasters (NAB) nab.org

The National Association of Broadcasters is the "voice for the nation's radio and television broadcasters." As the trade association for over-the-air broadcasters, the NAB advances the interests of its members in federal government, industry and public affairs. NAB is the chief lobbying advocate for broadcasters in Washington, D.C., also coordinating with the

lobbying efforts of broadcast associations in the capitals of all 50 states.

National Cable & Telecommunications Association (NCTA)

ncta.com

NCTA is the principal trade association for the U.S. cable industry, representing cable operators serving more than 90 percent of the nation's cable television households and more than 200 cable program networks. The cable industry is the nation's largest broadband provider of high-speed Internet access, serving more than 51 million customers. Cable companies also provide digital telephone service to more than 27 million American consumers.

NBC

nbc.com

A division of NBC Universal, NBC is a national commercial broadcast television network. NBC provides entertainment, sports and news programming from the national network level to local NBC television stations throughout the U.S. as well as programming that can be accessed online.

Nielsen Media Research

nielsen.com

Nielsen Media Research (NMR), once one of the largest media research companies in the world, began as a division of AC Nielsen, a marketing research firm. The Nielsen TV ratings have been produced in the U.S. since the 1950s and statistically measure which programs are watched by different segments of the population. Today, NMR also provides radio broadcast ratings. The results of these ratings are used to set the advertising rates for commercials broadcast on U.S. radio and TV stations as well as some digital media companies.

Parental Guide

parentalguide.org

Primarily an online shopping Web site for young families, Parental Guide also provides a resource for parents and caregivers seeking information on the voluntary parental guideline systems in place for television, movies, video games and recorded music.

Public Broadcasting Service (PBS)

pbs.org

With more than 350 publicly funded, noncommercial TV stations throughout the U.S., PBS reaches nearly 103 million viewers per week through on-air broadcasts and 33 million viewers of programming and content online. PBS.org includes a program search, TV schedules and links to online-featured programming on topics such as History, Culture & Society and News & Public Affairs. PBS Kids Online (pbskids.org) provides educational entertainment for children as well as a comprehensive resource section for parents and teachers.

Television Bureau of Advertising (TVB) tvb.org

TVB is the not-for-profit trade association of America's commercial broadcast television industry. Its members include television broadcast groups, advertising sales reps, syndica-

tors, international broadcasters, associate members and almost 700 individual television stations. TVB actively promotes local media marketing solutions for television stations.

TV.com

tv.com

This fan-run site includes information about programs, episodes, actors, lines and trivia for TV shows from the 1940s to today. It has a wide variety of online forums sorted by show genre as well as news, celebrity photos, downloads and podcasts.



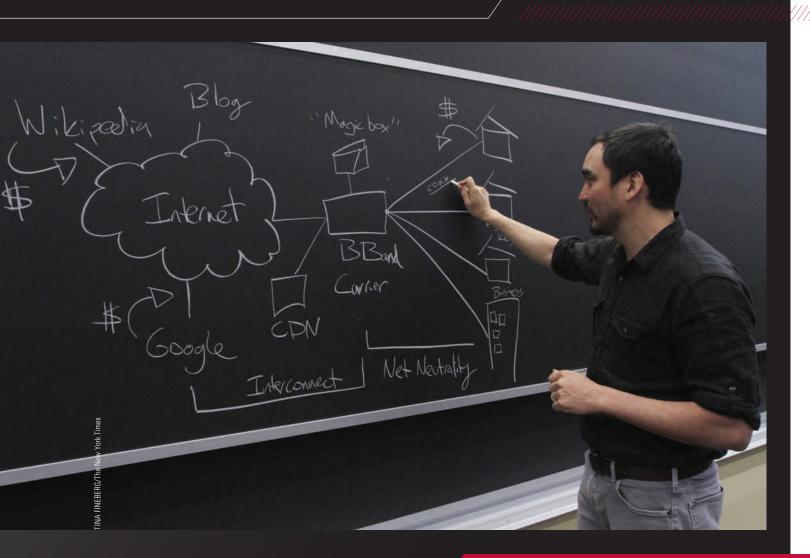
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access a variety of additional material-including learning objectives, chapter readings with highlighting and note-taking, Impact/Action Videos, activities, and comprehension quizzes that will guide you through this chapter.

INTERNET MEDIA WIDENING THE WEB

09



Columbia University law professor Tim Wu, who coined the term *net neutrality*, argues that the federal government should guarantee equal Internet access for everyone through law and regulation.