



Radio, Recording, and Popular Music

LEARNING OBJECTIVES

Radio was the first electronic mass medium; it was the first national broadcast medium. It produced the networks, program genres, and stars that made television an instant success. But for many years radio and records were young people's media; they gave voice to a generation. As such, they may be our most personally significant mass media. After studying this chapter you should

- be familiar with the history and development of the radio and sound recording industries and radio and sound recording themselves as media.
 - recognize the importance of early financing and regulatory decisions regarding radio and how they have shaped the nature of contemporary broadcasting.
 - recognize how the organizational and economic natures of the contemporary radio and sound recording industries shape the content of both media.
 - understand the relationship between radio, sound recording, popular music, and their listeners.
 - be aware of new and emerging radio and recording technologies and their potential impact on music, the industries themselves, and listeners.
 - be familiar with the economic and ethical controversies surrounding music file sharing on the Internet.
 - possess improved radio-listening media literacy skill, especially in assessing the cultural value of shock jocks.
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Can we listen to the radio?"

"We are listening to the radio."

"I mean something other than this."

"You want music?"

"Yes, please, anything but public radio. Too much talk."

"OK. Here."

"What! That's the classical music station!"

"What's wrong with that?"

"Nothing . . . much."

"What's that supposed to mean, 'Nothing . . . much?'"

"Nothing . . . much. Let me choose."

"OK. You find a station."

"Fine. Here."

"What's that?!"

"It's the New Hot One. KISS 100. All the hits all the time."

"That's not music."

"You sound like my parents."

"I don't mean the stuff they play isn't music, I mean the deejay is yammering away."

"Hang on. A song is coming up. Anyway, this is funny stuff."

"I don't find jokes about minority wheelchair races funny."

"It's all in fun."

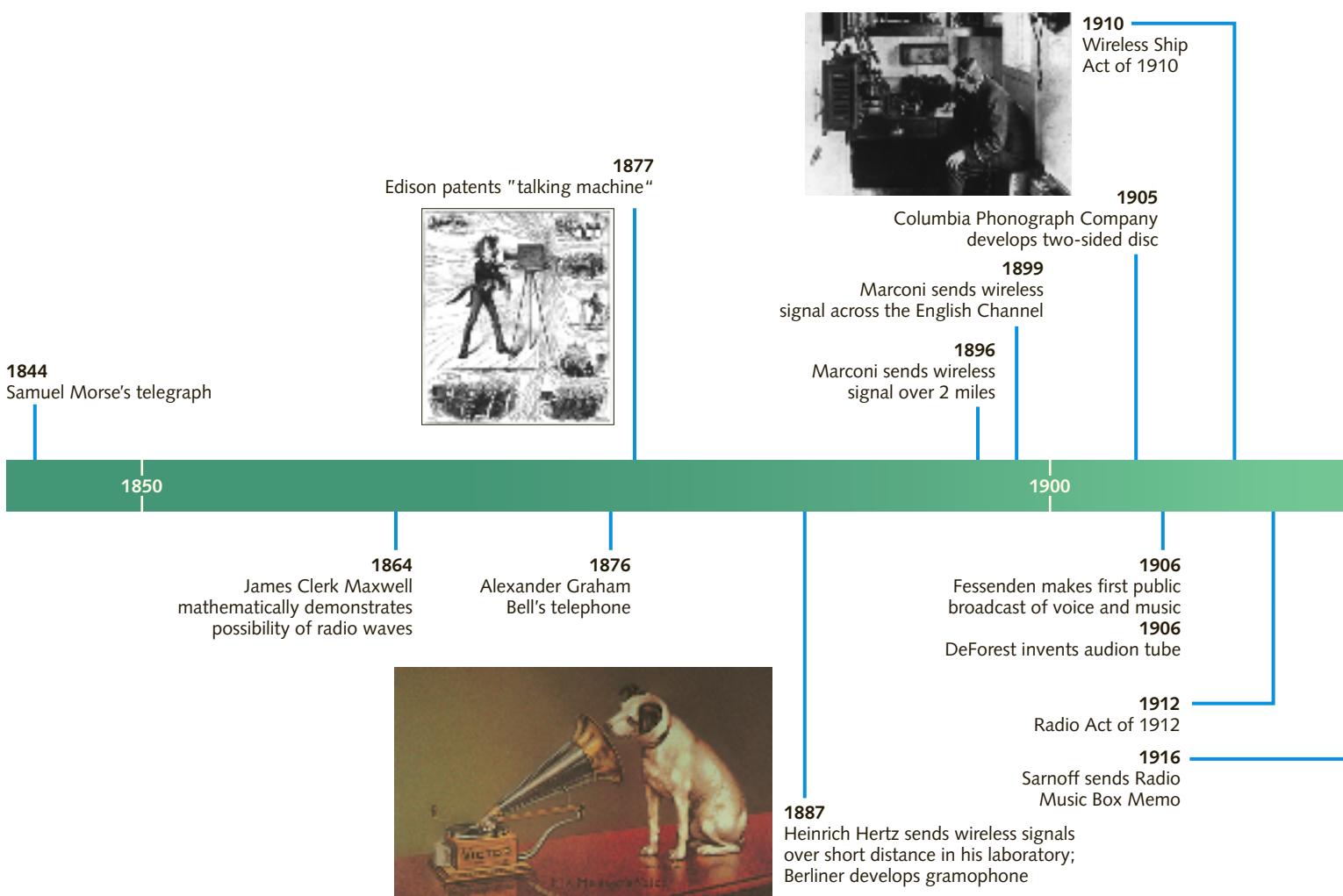
"Fun for whom?"

"What's *your* problem today?"

"Nothing, I just don't find that kind of stuff funny. Here, I'll find something."

"What's that?"

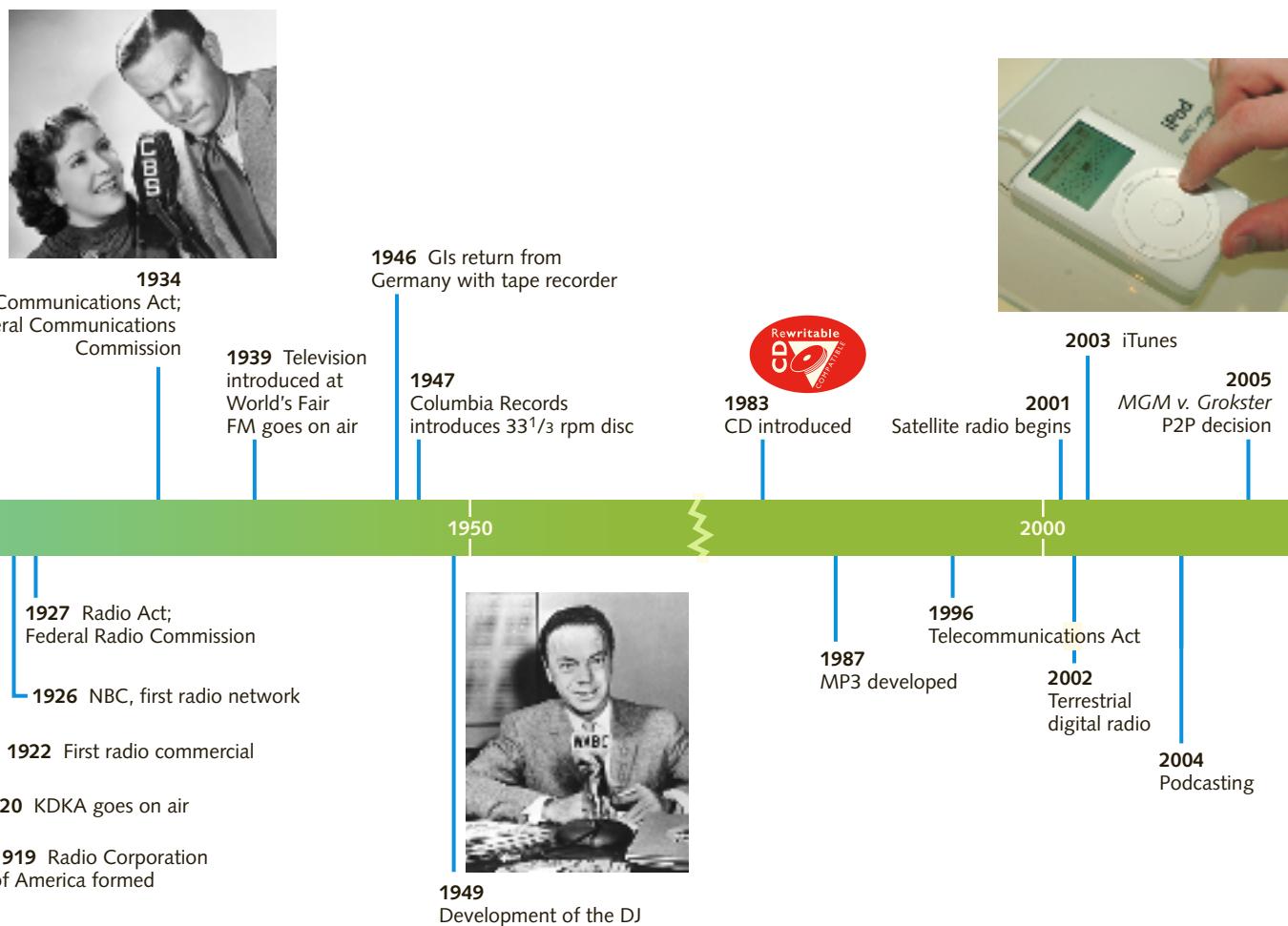
"The jazz station."



"Give me a break. How about Sports Talk?"
 "Nah. How about All News?"
 "No way. How about the All Talk station?"
 "Why, you need another fix of insulting chatter?"
 "How about silence?"
 "Yeah, how about it?"

In this chapter we study the technical and social beginnings of both radio and sound recording. We revisit the coming of broadcasting and see how the growth of regulatory, economic, and organizational structures led to the medium's golden age.

The heart of the chapter covers how television changed radio and produced the medium with which we are now familiar. We review the scope and nature of contemporary radio, especially its rebirth as a local, fragmented, specialized, personal, and mobile medium. We examine how these characteristics serve advertisers and listeners. The chapter then explores the relationship between radio, the modern recording industry, popular music, and the way new technologies serve and challenge all three. The popularity of shock jocks inspires our discussion of media literacy.



A Short History of Radio and Sound Recording

The particular stations you disagree about may be different, but almost all of us have been through a conversation similar to the one in the opening vignette. Radio, the seemingly ubiquitous medium, matters to us. Because we often listen to it alone, it is personal. Radio is also mobile. It travels with us in the car, and we take it along in our Walkmans. Radio is specific as well. Stations aim their content at very narrowly defined audiences. But these are characteristics of contemporary radio. Radio once occupied a very different place in our culture. Let's see how it all began.

EARLY RADIO



Marconi
www.marconi.com/home/about_us/our%20history



DeForest
www.leedeforest.org

Guglielmo Marconi



The “Father of Radio,” Guglielmo Marconi, son of a wealthy Italian businessman and his Irish wife, had taken to reading scientific reports about the sending of signals through the air without wires. But unlike the early pioneers whom he studied—for example, James Clerk Maxwell and Heinrich Hertz—the young Marconi was interested not in the theory of sending signals through the air but in actually doing it. His improvements over earlier experimental designs allowed him to send and receive telegraph code over distances as great as 2 miles by 1896. His native Italy was not interested in his invention, so he used his mother’s contacts in Great Britain to find support and financing there. England, with a global empire and the world’s largest navy and merchant fleets, was naturally interested in long-distance wireless communication. With the financial and technical help of the British, Marconi successfully transmitted across the English Channel in 1899 and across the Atlantic in 1901. Wireless was now a reality. Marconi was satisfied with his advance, but other scientists saw the transmission of *voices* by wireless as the next hurdle, a challenge that was soon surmounted.

In 1903 Reginald Fessenden, a Canadian, invented the **liquid barretter**, the first audio device permitting reception of wireless voices. His 1906 Christmas Eve broadcast from Brant Rock, a small New England coastal village, was the first public broadcast of voices and music. His listeners were ships at sea and a few newspaper offices equipped to receive the transmission.

Later that same year American Lee DeForest invented the **audion tube**, a vacuum tube that improved and amplified wireless signals. Now the reliable transmission of clear voices and music was a reality. But DeForest’s second important contribution was that he saw radio as a means of *broadcasting*. The early pioneers, Marconi included, had viewed radio as a device for point-to-point communication, for example, from ship to ship or ship to shore. But in the 1907 prospectus for his radio company DeForest wrote, “It will soon be possible to distribute grand opera music from transmitters placed on the stage of the Metropolitan Opera House by a Radio Telephone station on the roof to almost any dwelling in Greater New York and vicinity. . . . The same applies to large cities. Church music, lectures, etc., can be spread abroad by the Radio Telephone” (as

quoted in Adams, 1996, pp. 104–106). Soon, countless “broadcasters” went on the air. Some broadcasters were giant corporations, looking to dominate the medium for profit; some were hobbyists and hams, playing with the medium for the sheer joy of it. There were so many “stations” that havoc reigned. Yet the promise of radio was such that the medium continued to mature until World War I, when the U.S. government ordered “the immediate closing of all stations for radio communications, both transmitting and receiving.”

EARLY SOUND RECORDING

The late 1800s also saw the beginning of sound recording. In 1877 prolific inventor Thomas Edison patented his “talking machine,” a device for replicating sound that used a hand-cranked grooved cylinder and a needle. The mechanical movement caused by the needle passing along the groove of the rotating cylinder and hitting bumps was converted into electrical energy that activated a diaphragm in a loudspeaker and produced sound. The drawback was that only one “recording” could be made of any given sound; the cylinder could not be duplicated. In 1887 that problem was solved by German immigrant Emile Berliner, whose gramophone used a flat, rotating, wax-coated disc that could easily be copied or pressed from a metal master. Two equally important contributions to recording made by Berliner were development of a sophisticated microphone and (through his company, RCA Victor Records) the import from Europe of recordings by famous opera stars. Now people had not only a reasonably priced record



Lee DeForest



In 1887 Emile Berliner developed the flat disc gramophone and a sophisticated microphone, both important to the widespread public acceptance of sound recordings for the home. Nipper, the trademark for his company, RCA Victor, is on the scene even today.

player but records to play on it. The next advance was introduction of the two-sided disc by the Columbia Phonograph Company in 1905. Soon there were hundreds of phonograph or gramophone companies, and the device, by either name, was a standard feature in U.S. homes by 1920. More than 2 million machines and 107 million recordings were sold in 1919 alone. Public acceptance of the new medium was enhanced even more by development of electromagnetic recording in 1924 by Joseph P. Maxwell at Bell Laboratory.

The parallel development and diffusion of radio and sound recording is significant. For the first time in history radio allowed people to hear the words and music of others who were not in their presence. On recordings they could hear words and music that may have been created days, months, or even years before.

THE COMING OF BROADCASTING

This cover of an 1877 newspaper proved prophetic in its image of speakers' ability to "broadcast" their words.



The idea of broadcasting—that is, transmitting voices and music at great distances to a large number of people—predated the development of radio. Alexander Graham Bell's telephone company had a subscription music service in major cities in the late 1800s, delivering music to homes and businesses by telephone wires. A front-page story in an 1877 edition of the *New York Daily Graphic* suggested the possibilities of broadcasting to its readers. The public anticipated and, after DeForest's much publicized successes, was eager for music and voices at home. Russian immigrant David Sarnoff, then an employee of American Marconi, recognized this desire and in 1916 sent his superiors what has become famous as the "Radio Music Box Memo." In this memo Sarnoff wrote of

a plan of development which would make radio a "household utility" in the same sense as the piano or phonograph. The idea is to bring music into the house by wireless.... The receiver can be designed in the form of a simple "Radio Music Box" and arranged for several different wavelengths, which should be changeable with the throwing of a single switch or pressing of a single button. (Sterling & Kitross, 1990, p. 43)

The introduction of broadcasting to a mass audience was delayed in the first 2 decades of the 20th century by patent fights and lawsuits. DeForest and Fessenden were both destroyed financially by the conflict. Yet when World War I ended, an enthusiastic audience awaited what had become a much-improved medium. In a series of developments that would be duplicated for television at the time of World War II, radio was transformed from an exciting technological idea into an entertainment and commercial giant. To aid the war effort, the government took over the patents relating to radio and continued to improve radio for military use. Thus, refinement and development of the

technical aspects of radio continued throughout the war. Then, when the war ended in 1919, the patents were returned to their owners—and the bickering was renewed.

Concerned that the medium would be wasted and fearful that a foreign company (British Marconi) would control this vital resource, the government forced the combatants to merge. American Marconi, General Electric, American Telephone & Telegraph, and Westinghouse (in 1921)—each in control of a vital piece of technology—joined to create the Radio Corporation of America (RCA). RCA was a government-sanctioned monopoly, but its creation avoided direct government control of the new medium. Twenty-eight-year-old David Sarnoff, author of the Radio Music Box Memo, was made RCA's commercial manager. The way for the medium's popular growth was paved; its success was guaranteed by a public that, because of the phonograph, was already attuned to music in the home and, thanks to the just-concluded war, was awakening to the need for instant, wide-ranging news and information.

On September 30, 1920, a Westinghouse executive, impressed with press accounts of the number of listeners who were picking up broadcasts from the garage radio station of company engineer Frank Conrad, asked him to move his operation to the Westinghouse factory and expand its power. Conrad did so, and on October 27, 1920, experimental station 8XK in Pittsburgh, Pennsylvania, received a license from the Department of Commerce to broadcast. On November 2 this station, KDKA, made the first commercial radio broadcast, announcing the results of the presidential election that sent Warren G. Harding to the White House. By mid-1922, there were nearly 1 million radios in American homes, up from 50,000 just a year before (Tillinghast, 2000, p. 41).

THE COMING OF REGULATION

As the RCA agreements demonstrated, the government had a keen interest in the development, operation, and diffusion of radio. At first government interest focused on point-to-point communication. In 1910 Congress passed the Wireless Ship Act, requiring that all ships using U.S. ports and carrying more than 50 passengers have a working wireless and operator. Of course, the wireless industry did not object, as the legislation boosted sales. But after the *Titanic* struck an iceberg in the North Atlantic in 1912 and it was learned that hundreds of lives were lost needlessly because many ships in the area had left their radios unattended, Congress passed the Radio Act of 1912, which not only strengthened rules regarding shipboard wireless but also required that wireless operators be licensed by the Secretary of Commerce and Labor.

The Radio Act of 1912 established spheres of authority for both federal and state governments, provided for allocating and revoking licenses and fining violators, and assigned frequencies for station operation. The government was in the business of regulating what was to become broadcasting, a development that angered many operators. They successfully challenged the



The wireless-telegraphy room of the *Titanic*. Despite the heroic efforts of wireless operator Jack Philips, scores of people died needlessly in the sinking of that great ocean liner because the ships in its vicinity did not man their receivers.

1912 act in President Calvin Coolidge ordered the cessation of government regulation of radio despite his belief that chaos would descend on the medium.

He proved prophetic. The industry's years of flouting the 1912 act had led it to the brink of disaster. Radio sales and profits dropped dramatically. Listeners were tired of the chaos. Stations arbitrarily changed frequencies, power, and hours of operation, and there was constant interference between stations, often intentional. Radio industry leaders petitioned Commerce Commissioner Herbert Hoover and, according to historian Erik Barnouw (1966)—who titled his book on radio's early days *A Tower in Babel*—“encouraged firmness” in government efforts to regulate and control the competitors. The government's response was a series of four National Radio Conferences involving industry experts, public officials, and government regulators. These conferences produced the Radio Act of 1927. Order was restored, and the industry prospered. But the broadcasters had made an important concession to secure this saving intervention. The 1927 act authorized them to *use* the channels, which belonged to the public, but not to *own* them. Broadcasters were thus simply the caretakers of the airwaves, a national resource.

The act further stated that when a license was awarded, the standard of evaluation would be the *public interest, convenience, or necessity*. The Federal Radio Commission (FRC) was established to administer the provisions of the act. This **trustee model** of regulation is based on two premises (Bittner, 1994). The first is the philosophy of **spectrum scarcity**. Because broadcast spectrum space is limited and not everyone who wants to broadcast can, those who are granted licenses to serve a local area must accept regulation. The second reason for regulation revolves around the issue of influence. Broadcasting reaches virtually everyone in society. By definition, this ensures its power.

The Communications Act of 1934 replaced the 1927 legislation, substituting the Federal Communications Commission (FCC) for the FRC and cementing its regulatory authority, which continues today.

ADVERTISING AND THE NETWORKS

While the regulatory structure of the medium was evolving, so were its financial bases. The formation of RCA had ensured that radio would be a commercial, profit-based system. The industry supported itself through the sale of receivers; that is, it operated radio stations in order to sell radios. The problem was that once everybody had a radio, people would stop buying them. The solution was advertising. On August 22, 1922, New York station WEAF accepted the first radio commercial, a 10-minute spot for Long Island brownstone apartments. The cost of the ad was \$50.

The sale of advertising led to establishment of the national radio networks. Groups of stations, or **affiliates**, could deliver larger audiences, realizing greater advertising revenues, which would allow them to hire bigger stars and produce better programming, which would attract larger audiences, which could be sold for even greater fees to advertisers. RCA set up a 24-station network, the National Broadcasting Company (NBC), in 1926. A year later it bought AT&T's stations and launched a second network, NBC Blue (the original NBC was renamed NBC Red). The



Federal Communications
Commission
www.fcc.gov

Columbia Broadcasting System (CBS) was also founded in 1927, but it struggled until 26-year-old millionaire cigar maker William S. Paley bought it in 1928, making it a worthy competitor to NBC. The fourth network, Mutual, was established in 1934 largely on the strength of its hit Western *The Lone Ranger*. Four midwestern and eastern stations came together to sell advertising on it and other shows; soon Mutual had 60 affiliates. Mutual differed from the other major national networks in that it did not own and operate its own flagship stations (called **O&Os**, for owned and operated). By 1938 the four national networks had affiliated virtually all the large U.S. stations and the majority of smaller operations as well. These corporations grew so powerful that in 1943 the government forced NBC to divest itself of one of its networks. It sold NBC Blue to Life Saver candy maker Edward Noble, who renamed it the American Broadcasting Company (ABC).

The fundamental basis of broadcasting in the United States was set:

- Radio broadcasters were private, commercially owned enterprises, rather than government operations.
- Governmental regulation was based on the public interest.
- Stations were licensed to serve specific localities, but national networks programmed the most lucrative hours with the largest audiences.
- Entertainment and information were the basic broadcast content.
- Advertising formed the basis of financial support for broadcasting.

THE GOLDEN AGE

The networks ushered in radio's golden age. Although the 1929–1939 Great Depression damaged the phonograph industry, with sales dipping to as few as 6 million records in 1932, it helped boost radio. Phonographs and records cost money, but once a family bought a radio, a whole world of entertainment and information was at its disposal, free of charge. The number of homes with radios grew from 12 million in 1930 to 30 million in 1940, and half of them had not one but two receivers. Ad revenues rose from \$40 million to \$155 million over the same period. Between them, the four national networks broadcast 156 hours of network-originated programming a week. New genres became fixtures during this period: comedy (*The Jack Benny Show*, *Fibber McGee and Molly*), audience participation (*Professor Quiz*, *Truth or Consequences*, *Kay Kyser's Kollege of Musical Knowledge*), children's shows (*Little Orphan Annie*, *The Lone Ranger*), soap operas (*Oxydol's Ma Perkins*, *The Guiding Light*), and drama (Orson Welles's *Mercury Theater of the Air*). News, too, became a radio staple.

Radio and Sound Recording in World War II The golden age of radio shone even more brightly after Pearl Harbor was bombed by the Japanese in 1941, propelling the United States into World War II. Radio was used to sell war bonds, and much content was aimed at boosting the nation's morale. The war increased the desire for news, especially from abroad. The war also caused a paper shortage, reducing advertising space in newspapers. No new stations were licensed during the war years, and the 950 existing broadcasters reaped all the broadcast advertising revenues, as well as additional ad

revenues that otherwise would have gone to newspapers. Ad revenues were up to \$310 million by the end of World War II in 1945.

Sound recording benefited from the war as well. Prior to World War II, recording in the United States was done either directly to master metal disc or on wire recorders, literally magnetic recording on metal wire. But GIs brought a new technology back from occupied Germany, a tape recorder that used an easily handled paper tape on a reel. In 1947, Columbia Records introduced a new $33\frac{1}{3}$ rpm (rotations-per-minute) long-playing plastic record perfected by Peter Goldmark. A big advance over the previous standard of 78 rpm, it was more durable than the older shellac discs and played for 23 rather than $3\frac{1}{3}$ minutes. Columbia offered the technology free to all other record companies. RCA refused the offer, introducing its own 45 rpm disc in 1948. It played for only $3\frac{1}{3}$ minutes and had a huge center hole requiring a special adapter. Still, RCA persisted in its marketing, causing a speed war that was settled in 1950 when the two giants compromised on $33\frac{1}{3}$ as the standard for classical music and 45 as the standard for pop. And it was the 45, the single, that sustained the music business until the mid-1960s, when the Beatles not only ushered in the “British invasion” of rock ‘n’ roll but also transformed popular music into a $33\frac{1}{3}$ album-dominant cultural force, shaping today’s popular music and helping reinvent radio.

Television Arrives When the war ended and radio licenses were granted again, the number of stations grew rapidly to 2,000. Annual ad revenues reached \$454 million in 1950. Then came television. Network affiliation dropped from 97% in 1945 to 50% by the mid-1950s, as stations “went local” in the face of television’s national dominance. National radio advertising income dipped to \$35 million in 1960, the year that television found its way into 90% of U.S. homes. If radio were to survive, it would have to find new functions.

George Burns and Gracie Allen were CBS comedy stars during radio’s golden age. They were among the many radio performers to move easily and successfully to television.



Radio and Its Audiences

Radio has more than survived; it has prospered by changing the nature of its relationship with its audiences. The easiest way to understand this is to see pretelevision radio as television is today—nationally oriented, broadcasting an array of recognizable entertainment program formats, populated by well-known stars and personalities, and consumed primarily in the home, typically with people sitting around the set. Posttelevision radio is local, fragmented, specialized, personal, and mobile. Whereas pretelevision radio was characterized by the big national networks, today's radio is dominated by formats, a particular sound characteristic of a local station.

Who are the people who make up radio's audience? In an average week, more than 225 million people, 94% of all Americans 12 and over, will listen to the radio. Between the weekday hours of 6:00 and 10:00 a.m., 81% of all 12-year-olds and older will tune in. The majority of Americans, 60%, get their first news of the day from radio, and where the large majority of all listening once occurred in cars, this is no longer the case, as you can see in Figure 7.1.

Radio's audience, though, is not growing. In fact, it is declining. The annual *MTV Networks/Viacom Study of Media, Entertainment, and Leisure Time* released in June 2000 showed a sharp decline from the previous year's level of listening among teens and young adults ("Poll Says," 2000). Radio industry data also indicate a steady decline in listenership. In 1989, 17.5% of the population listened regularly to commercial radio. Today, the proportion is 15.4% (Fonda, 2004). Overall time spent listening to radio decreased 9% between 1993 and 1999, or approximately 2 hours a week (Rathburn, 2000). The primary factors in this loss of audience, according to the industry itself, are the availability of online music, listener dissatisfaction with unimaginative programming ("McRadio" to critics), and hypercommercialization—on average about 12 minutes of commercials an hour for a typical station, a 6% increase between 1998 and 1999 alone (Rathburn, 2000).

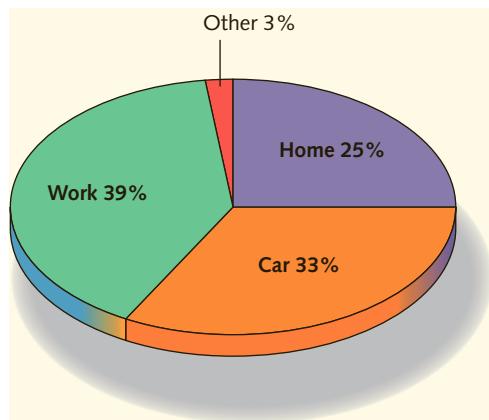


Figure 7.1 Where People Listen to the Radio. *Source:* Project for Excellence in Journalism, 2004.

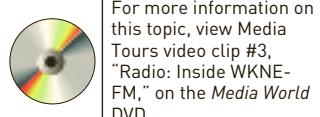
Scope and Nature of the Radio Industry

There are 13,517 broadcast radio stations operating in the United States today: 4,761 commercial AM stations; 6,205 commercial FM stations; and 2,551 noncommercial FM stations.

There are more than two radios for every person in the United States. The industry as a whole sells about \$20 billion a year of ad time (Television Bureau of Advertising, 2006). And despite declining listenership, advertisers annually spend more than \$100 for every household in the country to buy air time (Lindsay, 2006).

FM, AM, AND NONCOMMERCIAL RADIO

Although FMs constitute only 57% of all commercial stations (to AMs' 43%), they attract 75% of all radio listeners. This has to do with the technology behind each. The FM (frequency modulation) signal is wider, allowing the



For more information on this topic, view Media Tours video clip #3, "Radio: Inside WKNE-FM," on the *Media World* DVD.

broadcast not only of stereo but also of better fidelity to the original sound than the narrower AM (amplitude modulation) signal. As a result, people attracted to music, a radio staple, gravitate toward FM. People favoring news, sports, and information tend to find themselves listening to the AM dial. AM signals travel farther than FM signals, making them perfect for rural parts of the country. But rural areas tend to be less heavily populated, and most AM stations serve fewer listeners. The FCC approved stereo AM in 1985, but relatively few people have AM stereo receivers. There seems to be little demand for news, sports, and information in stereo.

FM came about as a result of the work begun in 1923 by inventor-innovator Edwin Armstrong. By 1935 Armstrong was demonstrating his technology, as well as stereo radio, to his financial benefactor, RCA's David Sarnoff. But RCA rejected this potential competitor to its AM domain to focus on television instead. So Armstrong turned to GE, and together they put the first FM station, W2XMN, on the air in 1939.

Many of today's FM stations are noncommercial—that is, they accept no advertising. When the national frequency allocation plan was established during the deliberations leading to the 1934 Communications Act, commercial radio broadcasters persuaded Congress that they alone could be trusted to develop this valuable medium. They promised to make time available for religious, children's, and other educational programming. No frequencies were set aside for noncommercial radio to fulfill these functions. At the insistence of critics who contended that the commercial broadcasters were not fulfilling their promise, in 1945 the FCC set aside all FM frequencies between 88.1 and 91.9 megahertz for noncommercial radio. Today these noncommercial stations not only provide local service, but many also offer national network quality programming through affiliation with National Public Radio (NPR) and Public Radio International (PRI) or through a number of smaller national networks, such as Pacifica Radio.

RADIO IS LOCAL

No longer able to compete with television for the national audience in the 1950s, radio began to attract a local audience. Because it costs much more to run a local television station than a local radio station, advertising rates on radio tend to be much lower than on television. Local advertisers can afford radio more easily than they can television, which increases the local flavor of radio. You can see where most listening occurs in Figure 7.1.

RADIO IS FRAGMENTED

Radio stations are widely distributed throughout the United States. Virtually every town—even those with only a few hundred residents—has at least one station. The number of stations licensed in an area is a function of both population and proximity to other towns. Tiny Long Beach, Mississippi, has one FM station. White Bluff, Texas, has one AM station. Chicago has 19 AMs and 30 FMs, and New York City has 17 AM and 28 FM stations. This fragmentation—many stations serving many areas—makes possible contemporary radio's most important characteristic, its ability to specialize.



National Public Radio
www.npr.org



Public Radio International
www.pri.org



Pacifica Radio
www.pacifica.org

RADIO IS SPECIALIZED

When radio became a local medium, it could no longer program the expensive, star-filled genres of its golden age. The problem now was how to program a station with interesting content and do so economically. A disc jockey playing records was the best solution. But stations soon learned that a highly specialized, specific audience of particular interest to certain advertisers could be attracted with specific types of music. **Format** radio was born. Of course, choosing a specific format means accepting that many potential listeners will not tune in. But in format radio the size of the audience is secondary to its composition.

Radio ratings service Arbitron annually recognizes about 50 different formats, from the most common, which include Country, Top 40, Album-Oriented Rock, and All Talk, to the somewhat uncommon, for example, Ethnic. Many stations, especially those in rural areas, offer **secondary services** (formats). For example, a country station may broadcast a religious format for 10 hours on Saturday and Sunday.

Format radio offers stations many advantages beyond low-cost operations and specialized audiences that appeal to advertisers. Faced with falling listenership or declining advertising revenues, a station can simply change disc jockeys (DJs) and discs. Neither television nor the print media have this content flexibility. When confronted with competition from a station with a similar format, a station can further narrow its audience by specializing its formula even more. Many midsize and large markets have Album-Oriented Rock (AOR), Hard Rock, Alternative Rock, Classic Rock, Heavy Metal, and Soft Rock stations. There are Country, Contemporary Country, Outlaw Country, Album Country, Spanish Country, and Young Country (YC) stations.

Music format radio requires a disc jockey. Someone has to spin the discs and provide the talk. The modern DJ is the invention of Todd Storz, who bought KOHW in Omaha, Nebraska, in 1949. He turned the radio personality/music formula on its head. Before Storz, radio announcers would talk most of the time and occasionally play music to rest their voices. Storz wanted more music, less talk. He thought radio should sound like a jukebox—the same few songs people wanted to hear played over and over again. His Top 40 format, which demanded strict adherence to a **playlist** (a predetermined sequence of selected records) of popular music for young people, up-tempo pacing, and catchy production gimmicks, became the standard for the posttelevision popular music station. Gordon McClelland of KLIF in Dallas refined the Top 40 format and developed others, such as Beautiful Music, and is therefore often considered, along with Storz, one of the two pioneers of format radio.

RADIO IS PERSONAL

With the advent of television, the relationship of radio and its audience changed. Whereas families had gathered around the radio set to listen together, we now listen to the radio alone. We select personally pleasing formats, and we listen as an adjunct to other personally important activities.



Fans debate whether Todd Storz or Gordon McClelland first invented the DJ. But there is no dispute that Alan Freed, first in Cleveland and then in New York, established the DJ as a star. Freed, here in a 1958 photo, is credited with introducing America's White teenagers to rhythm 'n' blues artists like Chuck Berry and Little Richard and ushering in the age of rock 'n' roll.

RADIO IS MOBILE

The mobility of radio accounts in large part for its personal nature. We can listen anywhere, at any time. We listen at work, while exercising, while sitting in the sun. By 1947 the combined sale of car and alarm clock radios exceeded that of traditional living-room receivers, and in 1951 the annual production of car radios exceeded that of home receivers for the first time. It has continued to do so every year since.

The Business of Radio

The distinctive characteristics of radio serve its listeners, but they also make radio a thriving business.

RADIO AS AN ADVERTISING MEDIUM



Arbitron
www.arbitron.com

Ex-punk-rocker Billy Bragg has seen the future of American radio and rock 'n' roll, and it isn't pretty.



Advertisers enjoy the specialization of radio because it gives them access to homogeneous groups of listeners to whom products can be pitched. Since the entrenchment of specialized formats, there has not been a year in which annual **billings**—dollars earned from the sale of airtime—have declined. Advertisers buy local time (80% of all billings), national spots (for example, Prestone Antifreeze buys time on several thousand stations in winter areas), and network time. The cost of time is based on the ratings, an often controversial reality in radio (see the essay on p. 300, “Problems with Radio Ratings”).

Radio is an attractive advertising medium for reasons other than its delivery of a homogeneous audience. Radio ads are inexpensive to produce and therefore can be changed, updated, and specialized to meet specific audience demands. Ads can also be specialized to different times of the day. For example, a hamburger restaurant may have one version of its commercial for the morning audience, in which its breakfast menu is touted, and a different version for the evening audience driving home, dreading the thought of cooking dinner. Radio time is inexpensive to buy, especially when compared with television. An audience loyal to a specific format station is presumably loyal to those who advertise on it. Radio is the listeners' friend; it travels with them and talks to them personally.

Deregulation and Ownership

The business of radio is being altered by deregulation and changes in ownership rules. To ensure that there were many different perspectives in the cultural forum, the FCC had long limited the number of radio stations one person or company could own to 1 AM and 1 FM locally and 7 AMs and 7 FMs nationally. These numbers were revised upward in the late 1980s, and

MEDIA HISTORY REPEATS

Problems with Radio Ratings

Once radio became an advertising-based medium, some way was needed to count listeners so advertising rates could be set. The first rating system, the Crossleys, was begun in 1930 at the behest of the Association of National Advertisers, a group suspicious of broadcasters' own self-serving, exaggerated reports of audience size. Within 10 years, Hooper and Pulse were also offering radio ratings. All used random telephone calls, a method that ignored certain segments of the population (the rich and the poor, for example) and that could not accurately tap mobile use of the medium (such as listening in the car). In 1949 these companies and their methods were replaced by the American Research Bureau, later renamed Arbitron.

**THE RATING
ALL—ARE
THE FINAL
BOTH RATE
AND BRO
PROFIT FRO**

Arbitron mails diaries to willing listeners in every local market in the country and asks them to note what they listen to every 15 minutes for a period of 1 week. Arbitron reports:

- **Average quarter-hour:** the number of people listening to a station in each 15-minute segment
 - **Cume:** the cumulative audience or number of people listening to a station for at least 5 minutes in any 1 day
 - **Rating:** the percentage of the total population of a market reached
 - **Share:** the percentage of people listening to radio who are tuned in to a particular station

These measures are sophisticated, but the use of diaries incurs some problems. Lying is one; forgetting is another. Uneven diary return rates among different types of audiences is a third. Yet advertisers and radio stations need some standard measure of listenership to set rates. Therefore, the ratings—flaws and all—are accepted as the final word, and both ratings service and broadcasters profit from their use.

As soon as a medium encounters a dip in audience numbers, however, the ratings come under scrutiny and are blamed for the problem. This was the case for radio, and it is the case for television, as you'll see in Chapter 8.

When radio first began losing audience to television, it tried to ignore the problem. The cover from the August 17, 1953, issue of *Broadcasting/Telecasting* vividly demonstrates this technique—the medium is said to be as strong as ever, as central to people's lives as always. But there was no ignoring the continuing and growing loss of listeners. At the September 17 meeting of the NBC Radio Affiliates in Chicago, and after 15 years of using the ratings to make huge profits, new

THE RATINGS—FLAWS AND ALL—are accepted as the final word, and both ratings service and broadcasters profit from their use.

NBC president David Sarnoff (1953) offered this analysis of the dramatic drop in radio listenership:

Our industry from the outset has been plagued by rating systems which do not say what they mean and do not mean what they say. They develop figures which give an appearance of precision, even unto decimal points, until you read the fine print.

Unhappily these figures are seized upon by the advertising community as a substitute for analysis and judgment. They are used as the main standard for advertising values in broadcasting, and millions of dollars are spent or withheld each year on the basis of a drop or rise of a few ratings points! . . . Ratings, today, simply do not reflect the real audience. (p. 108)

The problem, in other words, was not the television-fueled exodus of millions of listeners—it was the ratings!



The Iowa radio station that bought space on the cover of the industry's "bible," Broadcasting/ Telecasting, wanted readers to believe all was well in radio-land in 1953.

controls were almost totally eliminated by the Telecommunications Act of 1996. Now, thanks to this **deregulation** there are no national ownership limits, and one person or company can own as many as 8 stations in one market, depending on the size of the market. This situation has allowed **duopoly**—one person or company owning and managing multiple radio stations in a single market—to explode. Since the passage of the 1996 act, more than 10,000 radio stations have been sold, and there are now 1,100 fewer station owners, a 30% decline. The vast majority of these sales have been to already large radio groups such as Clear Channel, Cumulus, and Citadel, with 1,207, 268, and 243 stations, respectively. As a result, in 25 of the 50 largest radio markets, three companies claim 80% of all listeners. In 43 different cities, one-third of the radio stations are owned by a single company; in 34 of those 43 cities, one company owns more than 8 stations (Moyers, 2003). Whereas all of Boston's 15 FMs and 14 of Seattle's 17 FMs are owned by four companies, each of the 12 FMs in Toronto, Canada, has a different owner.

This concentration is a source of concern for many radio professionals. Local public affairs shows now make up less than one-half of 1 percent of all commercial broadcast time in this country. Thirty-five percent of all commercial stations have no local news, and 25% have no local public affairs programming at all (FAIR, 2000). The American Federation of Television and Radio Artists has charged that giant group owners such as Clear Channel have “forever transformed and destroyed the radio and recording industries” (quoted in McConnell, 2002, p. 34). Media activist and scholar Robert McChesney agrees: “Radio has been destroyed. A medium that is arguably the least expensive and most accessible of our major media, that is ideally suited for localism, has been converted into a Wal-Mart-like profit machine for a handful of massive chains” (2004, p. 25). Ex-punk- and indie-rocker Billy Bragg commented dramatically on this situation: “I’m worried that we will end up with one record label, one radio station. I went to a place like that once; it was called the Soviet Union” (2004, p. 83). **Low Power FM (LPFM)**, 10- to 100-watt nonprofit community radio stations with a reach of only a few miles, are one response to radio concentration. FCC plans to authorize LPFM in 1999 were met with stiff opposition from commercial station owners (already losing listeners) and public broadcasters (afraid of losing listeners to noncommercial competitors). Still, 675 LPFM stations, representing all 50 states, are now on air. Today, the Local Community Radio Act of 2005, co-sponsored by senators from both political parties, and designed to thwart renewed opposition from commercial and public broadcasters, promises to expand the service designed, according to the FCC, to “create opportunities for new voices on the airwaves” and “support programming responsive to local community needs and interests” (in *Free Press*, 2005, p. 1).



Record Industry Association of
America
www.riaa.com

Scope and Nature of the Recording Industry

When the DJs and Top 40 formats saved radio in the 1950s, they also changed for all time popular music and, by extension, the recording industry. Disc jockeys were color-deaf in their selection of records. They introduced record

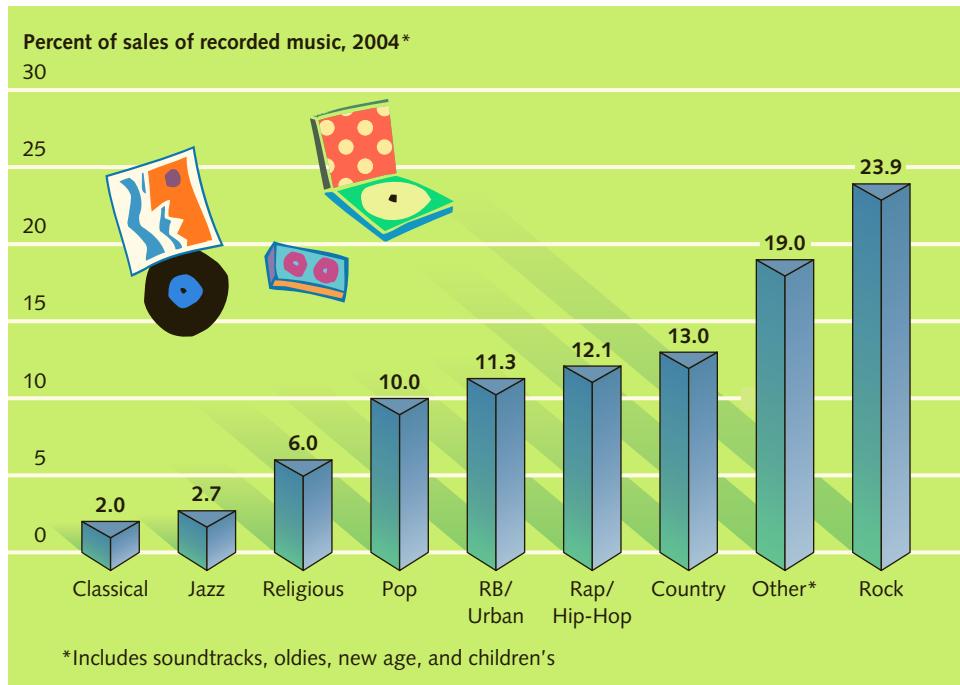


Figure 7.2 Sales of Recorded Music by Type, 2004. *Source:* Record Industry Association of America (www.riaa.com).

buyers to rhythm 'n' blues in the music of African American artists such as Chuck Berry and Little Richard. Until the mid-1950s the work of these performers had to be **covered**—rerecorded by White artists such as Perry Como—before it was aired. Teens loved the new sound, however, and it became the foundation of their own subculture, as well as the basis for the explosion in recorded music. See the essay on page •••, “Rock 'n' Roll, Radio, and Race Relations” for more on rock's roots.

Today more than 5,000 U.S. companies are annually selling 600 million tapes and discs of recorded music (worth about \$12 billion a year) on more than 10,000 labels (Seabrook, 2003). Customers in America annually buy one-third of the world's recorded music. See Figure 7.2 for an idea of what types of music are most popular.

THE MAJOR RECORDING COMPANIES

Four major recording companies control nearly 88% of the recorded music market in the United States. Two (Sony BMG and Universal) control more than 60% of the world's \$28 billion global music market. Three of the four are foreign-owned:

- Sony BMG, controlling 28% of the U.S. music market, is co-owned by two global media conglomerates, Japan's Sony and Germany's Bertlesmann. Its labels include Columbia, Epic, RCA, and Arista.
- New York-based Warner Music Group, controlling 16%, is owned by Edgar Bronfman and several private investors. Its labels include Atlantic, Electra, and Warner Brothers.



USING MEDIA TO MAKE A DIFFERENCE

Rock 'n' Roll, Radio, and Race Relations

After World War II African Americans in the United States refused to remain invisible. Having fought in segregated units in Europe and proven their willingness to fight and die for freedom abroad, they openly demanded freedom at home. Some Whites began to listen. President Harry Truman, recognizing the absurdity of racial separation in the self-proclaimed "greatest democracy on earth," desegregated the armed forces by executive order in 1948. These early stirrings of equality led to a sense among African Americans that anything was possible, and that feeling seeped into their music. What had been called *cat, sepia, or race music* took on a new tone. While this new sound borrowed from traditional Black music—gospel, blues, and sad laments over slavery and racial injustice—it was different, much different. Rock historian Ian Whitcomb called it music about "gettin' loaded, wantin' a bow-legged woman, and rockin' all night long" (1972, p. 212). Music historian Ed Ward said that this bolder, more aggressive music "spoke to a shared experience, not just to Black (usually rural Black) life," and it would become the "truly biracial popular music in this country" (Ward, Stokes,&Tucker, 1986, p. 83).

But before this new music could begin its assault on the cultural walls that divided Americans, it needed a new name (to differentiate itself from older forms of race music and to appear "less Black" to White listeners). Hundreds of small independent record companies sprang up to produce this newly labeled rhythm and blues (R&B), music focusing on Americans' shared experience, and sex and alcohol were part of life for people of all colors. Songs such as Wynonie Harris's "Good Rockin' Tonight," Amos Milburn's "Chicken Shack Boogie," Stick McGhee's "Drinkin' Wine, Spo-De-O-Dee," and Wild Bill Moore's "We're Gonna Rock, We're Gonna Roll" (a song not about dancing) were, for their time, startlingly open in their celebration of sex (not to be confused with love) and drink. With its earthy lyrics and thumping dance beat, R&B very quickly found an audience in the 1950s, one composed largely of urban Blacks (growing in number as African Americans increasingly fled the South) and White teenagers.

The major record companies took notice, and rather than sign already successful R&B artists, they had their White artists cover the Black hits. The Penguins' "Earth Angel" was covered by the reassuringly named Crew Cuts, who also covered the Chords' "Sh-Boom." The McGuire Sisters covered the Spaniels' "Goodnight Sweetheart, Well It's Time to Go." Chuck Berry's "Maybellene" was covered by both the Johnny Long and Ralph Marterie orchestras. Even Bill Haley and the Comets' youth anthem "Shake, Rattle and Roll" was a cover of a Joe Turner tune.

R&B AND ROCK 'N' ROLL DID NOT END RACISM. BUT THE MUSIC MADE A DIFFERENCE, ONE THAT WOULD EVENTUALLY MAKE IT POSSIBLE FOR AMERICANS WHO WANTED TO DO SO TO FREE THEMSELVES FROM RACISM'S UGLY HOLD.

But these covers actually served to introduce even more White teens to the new music, and these kids demanded the original versions. This did not escape the attention of Sam Phillips, who in 1952 founded Sun Records in an effort to bring Black music to White kids ("If I could find a White man who had the Negro sound, I could make a billion dollars," he is reported to have mused ["Why Elvis," 2002]). In 1954 he found that man: Elvis Presley.

The situation also caught the attention of Cleveland DJ Alan Freed, whose nationally distributed radio (and later television) show featured Black R&B tunes, never covers. Freed began calling the music he played rock 'n' roll (to signify that it was Black and White youth music), and by 1955, when Freed took his show to New York, the cover business was dead. Black performers were recording and releasing their own music to a national audience, and people of all colors were tuning in.

Now that the kids had a music of their own, and now that a growing number of radio stations were willing to program it, a youth culture began to develop, one that was antagonistic toward their parents' culture. The music was central to this antagonism, not only because it was gritty and nasty but also because it exposed the hypocrisy of adult culture. Nowhere was this more apparent than in Freed's 1953 rock 'n' roll concert at the Cleveland Arena. Although Cleveland was a segregated city, Freed opened the 9,000-seat venue to all the fans of his *Moondog's Rock and Roll Party* radio show. A racially mixed crowd of more than 18,000 teens showed up, forcing the cancellation of the concert. But the kids partied. They sang. They cheered. Not a single one asked for a refund. They had come—Black kids and White kids—to celebrate *their* music, *their* culture.

For young people of the mid-1950s and 1960s, the music of Little Richard, Fats Domino, Ray Charles, and Chuck Berry made a lie of all that their parents, teachers, and government leaders had said about race, the inferiority of African Americans, and Blacks' satisfaction with the status quo. As social critic Robert Pielke wrote,

A different and conflicting set of fundamental values was introduced into American culture, acquainting white adolescents with the black side of America in the process. But more important than even this was the fact of communication itself: the years of slavery and segregation had made it virtually impossible for the races to communicate honestly face to face. Now, for the first time in American history, whites were authentically hearing what blacks were saying. . . . To be more accurate, it was principally white youth who were doing the listening.



The music of Chuck Berry, Bo Diddley, and Little Richard may have been covered by White performers, but its passion and soul soon attracted young listeners of all races, making a lie of their parents' racial intolerance.

Prejudice, ignorance, superstition, hatred, and fear can only exist in the absence of genuine communication. . . . I don't mean to give the impression that white adolescents, en masse bought into black culture. Hardly. . . . [But] what was really significant was the fact that they were truly listening. It shouldn't seem so strange, then, that it was precisely this generation that found itself uncomfortable with the whole ideology of racism and all its attendant beliefs. Not that racism immediately came to an end with the listening to black music. Far from it. But white youth could no longer feel secure with the attitudes bequeathed to them; they now knew too much. (1986, p. 87)

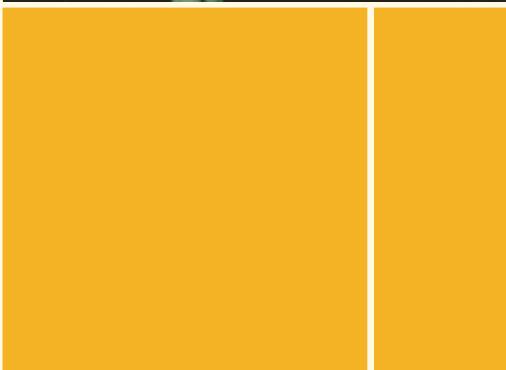
Ralph Bass, a producer for independent R&B label Chess Records, described the evolution to historian David Szatmary. When he was touring with Chess's R&B groups in the early 1950s, "they didn't let whites into the clubs. Then they got 'white spectator tickets' for the worst corner of the joint.

They had to keep the white kids out, so they'd have white nights sometimes, or they'd put a rope across the middle of the floor. The blacks on one side, the whites on the other, digging how the blacks were dancing and copying them. Then, hell, the rope would come down, and they'd all be dancing together. Salt and pepper all mixed together" (Szatmary, 2000, p. 21).

R&B and rock 'n' roll did not end racism. But the music made a difference, one that would eventually make it possible for Americans who wanted to do so to free themselves of racism's ugly hold. Rock music (and the radio stations that played it) would again nudge the nation toward its better tendencies during the antiwar and civil rights movements of the late 1960s. And it is against this backdrop, a history of popular music making as real a difference as any piece of official legislation, that contemporary critics lament the homogenizing of popular music (see p. 193). Music can and has made a difference. Can and will it ever again? they ask.



The music of The Doors, Busta Rhymes, Nelly, Beastie Boys, Bob Seeger, the Beatles, and B2K is in demand by advertisers for their TV commercials. Among them, who has “sold out” and who has “remained true” to the rebellious spirit of rock and rap? Check your answers by reading the essay entitled “Rock and Rap: Selling or Selling Out?”



- Universal Music Group, controlling 35%, is owned by French conglomerate Vivendi Universal and controls labels such as MCA.
- EMI Records, 9 percent, is owned by England's EMI Group and controls labels such as BMI, Capitol, and Def Jam Records.

Critics voice concern over conglomeration and internationalization in the music business, a concern that centers on the traditional cultural value of music, especially for young people. Multibillion-dollar conglomerates typically are not rebellious in their cultural tastes, nor are they usually willing to take risks on new ideas. These duties have fallen primarily to the independent labels, companies such as Real World Records and IRS. Still, problems with the music industry–audience relationship remain.

Cultural homogenization is the worrisome outcome of virtually all the world's influential recording being controlled by a few profit-oriented giants. If bands or artists cannot immediately deliver the goods, they aren't signed. So derivative artists and manufactured groups dominate—for example, Britney Spears and Hillary Duff. In fact, when Universal bought Polygram in 1998, it immediately announced that it would drop 250 artists from both companies' lists to focus on teen pop bands such as the Backstreet Boys. Epic Records' Harvey Leeds, senior vice president of artist development, explained, "The days of developing a band are gone. They're manufactured, not developed on the street. Instead of 'There's a new band that's huge in Gainesville, we'd better pay attention,' today they're created in a laboratory" (as quoted in Waller, 2000, p. 1).

The *dominance of profit over artistry* worries many music fans. When a major label must spend millions to sign a bankable group such as R.E.M. (\$80 million), Mariah Carey (\$80 million), or Whitney Houston (\$100 million), it typically pares lesser-known, potentially more innovative artists from its roster. EMI, for example, dropped 400 artists from its various labels in early 2002 in order to come up with the \$57 million, five-album deal it thought it needed to keep British pop star Robbie Williams from defecting to another company. Critics fear that the tenuous relationship that "minor" artists have with their conglomerated labels leads to *infringement of artistic freedom*. Said Phyllis Pollack, press agent for rap groups such as NWA and Geto Boys, "It's like we almost have a McCarthyism in the business. But the censorship isn't new; what's new is the fear and the compliance going on to this extent. And I think a lot of artists go along with it because they're afraid of being lost in the corporate shuffle and falling out of favor with their labels" (quoted in Strauss, 2000, p. 5G).

Critics and industry people alike see the ascendance of profits over artistry as a problem for the industry itself, as well as for the music and its listeners. Worldwide record industry sales dropped more than 14% between 2002 and 2003, a loss of more than \$3 billion in sales. In the United States alone, more than 100 million fewer units were sold in those 2 years than in the previous 2. The number of music CDs sold fell nearly 8% from 2004 to 2005 (Bart, 2006). Sales of all album music, including digital downloads, dropped from 785 million units in 2000 to fewer than 602 million in 2005 (Bing, 2006). The reason, say many music critics, is not Internet piracy, as asserted by the recording industry, but the industry itself.



Rock and Rap: Selling or Selling Out?

Rock and rap began as rebellious music, art with attitude. They questioned contemporary thinking about war, culture, race, sex, materialism, adulthood, the police. We've already seen how youngsters' embrace of rock 'n' roll helped confront 1950s racism. In the late 1960s in "For What It's Worth," rockers Buffalo Springfield challenged the Vietnam War and police crackdowns on antiwar protests: "Something's happening here, what it is ain't exactly clear, there's a man with a gun over there, telling me I've got to beware. . . . Young people speaking their mind, getting so much resistance from behind." Crosby, Stills, Nash, and Young, in "Ohio," called President Nixon to task by name for the 1970 shooting of four Kent State University students by the National Guard: "Tin soldiers and Nixon's coming, we're finally on our own, this summer I hear the drumming, four dead in Ohio." In 2003 rapper Jay-Z took on racism, the police, and racial profiling in "99 Problems": "So I pulled over to the side of the road, I heard, 'Son, do you know why I'm stoppin' you for?' Cause I'm young and I'm black and my hat's real low, do I look like a mind reader sir, I don't know. Am I under arrest or should I guess some more? 'Well, you was doing fifty-five in a fifty-four.'"

Music of protest, the voice of the young generation, or the hip sound track for television commercials? Consolidation in radio and recording has placed the cultural role of popular music squarely in the cultural forum.

For many, the obituary for popular music as the voice of protest has already been written. Here's *New York Times* editor Brent Staples' eulogy: "Independent radio stations that once would have played edgy, political music have been gobbled up by corporations that control hundreds of stations and have no wish to rock the boat. Corporate ownership has changed what gets played—and who plays it. With a few exceptions, the disc jockeys who once discovered provocative new music have long since been put out to pasture. The new generation operates from play lists dictated by Corporate Central—lists that some DJs describe as 'wallpaper music'" (2003, p. A30).

BUSTA RHYMES TITLED HIS ODE TO HIS FAVORITE DRINK "PASS THE COURVOISIER."
NELLY SUNG SO LONG AND SO PROFITABLY FOR NIKE'S AIR FORCE 1 SNEAKERS THAT THE SHOEMAKER NOW MARKETS NELLY NIKES, 50 CENT RHYMES FOR REEBOK, AND RUN-DMC RAPS ABOUT "MY ADIDAS."

But the issue that continues to inflame debate in the cultural forum is the use of "our music" to sell "their products," that is, the selling out of rap and rock to advertising. Among the most famous incidents was Nike's use of the Beatles' "Revolution" to sell sneakers. Michael Jackson owned the rights to the Beatles catalogue at the time and when he licensed this classic to the sneaker maker, the surviving ex-Beatles complained loudly. No more Beatles tunes have been sold for commercials; in fact, ex-Beatle Sir Paul McCartney bought the catalogue back from Jackson in part to ensure that their songs would never be used in commercials again. The Doors have steadfastly refused to license their music for commercials, as have Neil Young, the Beastie Boys, Bruce Springsteen, Pearl Jam, James Taylor, R.E.M., and Tom Waits. The

As music critic John Seabrook explains, "The record industry has helped to create these thieving, lazy, and disloyal fans. By marketing superficial, disposable pop stars, labels persuade fans to treat the music as superficial and disposable." He quotes legendary music producer Malcolm McLaren: "The amazing thing about the death of the record industry is that no one cares. If the movie industry died, you'd probably have a few people saying, 'Oh, this is too bad—after all, they gave us Garbo and Marilyn Monroe.' But now the record industry is dying, and no one gives a damn" (2003, p. 52). What kept the red ink from flowing even faster was strong sales in **catalogue albums** (more than 30% of all discs sold), albums more than 3 years old. However, sales of **recent catalogue albums**, that is, those that have been out for 15 months to 3 years, have fallen dramatically over the last 5 years, further damaging the industry's bottom line. "Recent catalogue" cannot become "catalogue" unless a label stays with an artist, allowing him or her to grow, possibly through three or four albums. Look at the

latter went as far as to successfully sue Frito-Lay for using a soundalike in a television spot.

But there is money to be made from what is, after all, a commodity, something that is bought and sold—popular music. Sting's "Desert Rose" and the Clash's "London Calling" are used to sell Jaguar automobiles; Microsoft uses the music of Madonna and Budweiser pitchmen/rockers the Rolling Stones to promote Windows. Kid Rock pushes beer, too—Coors. Bob Seeger's "Like a Rock" has been the theme song for Chevy truck commercials since 1991. Bob Dylan, who once sang "Money doesn't talk, it swears," touts Victoria's Secret lingerie and bank services. Rappers Ms. Jade and Timbaland collected \$300,000 for a Hummer H2 product placement in their *Ching Ching* music video. Epic Records actively pursues paid product placements for B2K videos and has told sponsors that it would accept product placements for "most of our pop acts" (Kaufman, 2003). Busta Rhymes titled his ode to his favorite drink "Pass the Courvoisier." Nelly has sung so long and so profitably for Nike's Air Force 1 sneakers that the shoemaker now markets Nelly Nikes; 50 Cent rhymes for Reebok, and Run-DMC raps about "My Adidas."

Enter your voice in the cultural forum. Do you think that this is no big deal; after all, it's only pop music? Why shouldn't entertainers make as much money as they can from their work? Or do you think that by cheapening the music—selling out—music's role in the culture, especially for young people, is altered? We've seen elsewhere in this chapter that some critics argue that transforming music into a superficial, disposable commodity encourages piracy and hurts sales. And how do you respond to Doors drummer John Densmore, who once turned down \$15 million from Cadillac to use "Break on Through" in an SUV commercial? "The bottom line is that our songs have a higher purpose, like keeping the integrity of

their original meaning for our fans," he said. "Many kids have said to me that 'Light My Fire,' for example, was playing when they first made love or were fighting in Nam or got high—pivotal moments in their lives" (2003, p. 45). Is this simply nostalgia for a different time, a time when the music mattered? Does music still matter? Can an artist sell products and not sell out?



Rapper or Reebok salesman?

names of the best-selling albums and artists in Figure 7.3. How many recent or current artists and albums do you think will ever join these ranks? Critics of the ascendance of profits over artistry argue that the industry simply lacks the patience to develop careers.

Promotion overshadows the music, say the critics. If groups or artists don't come across well on MTV or are otherwise a challenge to promote (for example, they do not fit an easily recognizable niche), they aren't signed. Again, the solution is to create marketable artists from scratch. Promoting tours is also an issue. If bands or artists do not have corporate sponsorship for their tours, there is no tour. If musicians do not tour, they cannot create an enthusiastic fan base. But if they do not have an enthusiastic fan base, they cannot attract the corporate sponsorship necessary to mount a tour. This makes radio even more important for the introduction of new artists and forms of music, but radio, too, is increasingly driven by profit-maximizing format narrowing and therefore dependent on the major labels'

Figure 7.3 The Top 10 Best-selling Albums and Artists of All Time, U.S. Sales Only.
Source: Recording Industry Association of America (www.riaa.com).



definition of playable artists. The essay on page 300, “Rock and Rap: Selling or Selling Out” discusses another form of Hypercommercialism in the music business.

Trends and Convergence in Radio and Sound Recording

Emerging and changing technologies have affected the production and distribution aspects of both radio and sound recording.

THE IMPACT OF TELEVISION

We have seen how television fundamentally altered radio’s structure and relationship with its audiences. Television, specifically cable channel MTV, changed the recording industry too. MTV’s introduction in 1981 helped pull the industry out of its disastrous 1979 slump. However, it altered the radio–record company relationship, and many hits are now introduced on MTV rather than on radio. In addition, the look of concerts has changed. No longer is it sufficient to pack an artist or group into a hall or stadium with a few thousand screaming fans. Now a concert must be an extravagant multimedia event approximating the sophistication of an MTV video. This means that fewer acts take to the road, changing the relationship between musicians and fans.

SATELLITE AND CABLE

The convergence of radio and satellite has aided the rebirth of the radio networks. Music and other forms of radio content can be distributed quite inexpensively to thousands of stations. As a result, one “network” can provide very different services to its very different affiliates. ABC, for example, maintains networks under the names of Disney and ESPN. Westwood One, which bought the NBC Radio network in 1987 and added it to its already large and varied networking and program **syndication** operations, counts among its affiliates 60% of all the commercial stations in the United States. The low cost of producing radio programming, however, makes the establishment of other, even more specialized networks possible. Satellites, too, make access to syndicated content and formats affordable for many stations. Syndicators can deliver news, top 10 shows, and other content to stations on a market-by-market basis. They can also provide entire formats, requiring local stations, if they wish, to do little more than insert commercials into what appears to listeners to be a local broadcast.

Satellite has another application as well. Many listeners now receive “radio” through their cable televisions in the form of satellite-delivered **DMX (Digital Music Express)**. Direct satellite home, office, and automobile delivery of audio by **digital audio radio service (DARS)**, although still relatively new, has begun to attract listeners, especially when the two providers—XM Satellite Radio, first operational in 2001, and Sirius, debuting in 2002—began programming personalities like Howard Stern, Bob Dylan, and Oprah Winfrey and striking deals with major league baseball, the National Basketball Association, and the National Football League. Home delivery by cable and satellite television has also helped draw subscribers. The larger of the two competitors, XM, has 6 million subscribers listening to 150 channels of music, talk, news, comedy, and sports (Figure 7.4). Sirius, with 3.3 million listeners, offers 120 channels. On both, music channels are commercial-free,

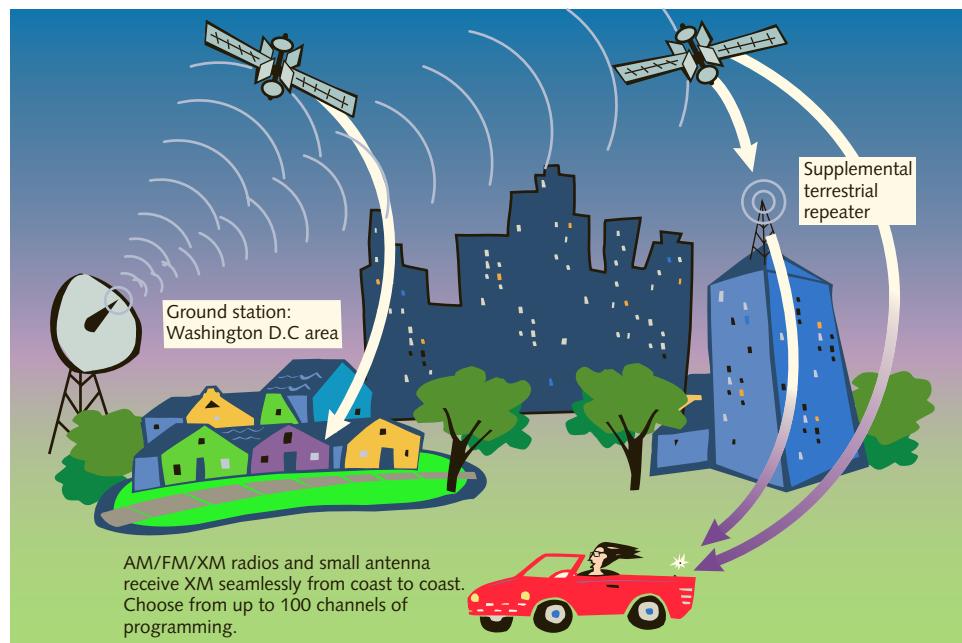


Figure 7.4 The operation of DARS provider XM Satellite Radio.

and listeners appear to enjoy the combination of more variety and no commercials, as only 1.5% a year try, and then drop, the service (“Battle,” 2006). But satellite radio’s true impact on the radio and recording industries may be something more than simply offering a greater variety of listening options. Because despite the fact that traditional radio station operators continue to dismiss satellite radio for its small audience (even the 45 million listeners anticipated by 2010), those same operators have begun to change the sound of their stations in response to the new technology. They are reducing the number of commercials they air, adding hundreds of new songs and artists to their playlists, and introducing new formats. Many are also beefing up their local news operations. Both radio and popular music should be better for the change (Manly, 2005).

MOBILE PHONES AND THE SOUND OF MONEY

Digital technology, so much a threat to the traditional recording industry business model, has helped the labels’ balance sheets in an unlikely manner—the sale of music to mobile phones. Ring-tone downloads, people downloading recorded music to serve as the alerting sound on their phones, is already a global \$5 billion business, expected to grow to nearly \$7 billion by 2010 (Siklos, 2005). For the record labels, this income is equivalent to “found money,” as it is generated from fragments of already existing recordings. Add to this the \$875 million the industry earned in 2006 from full-track downloads to mobile phones (an amount expected to increase to \$1.4 billion by 2008), and it is clear that mobile music provides a valuable new revenue stream for the recording business (McLean, 2006). Although Europe and Asia provide most of the activity in both types of downloading right now, American consumers are expected to catch up as manufacturers make available more sophisticated services and handsets capable of delivering, storing, and playing music. Two notable examples are Motorola’s ROKR phone and Verizon’s Vcast Music Service.

TERRESTRIAL DIGITAL RADIO

Since late 2002, 450 radio stations have begun broadcasting **terrestrial** (land-based) **digital radio**. Another 2,000 have committed to the technology. Relying on digital compression technology called **in-band-on-channel (IBOC)**, terrestrial digital radio allows broadcasters to transmit not only their usual analog signal, but one or more digital signals using their existing spectrum space. And although IBOC also improves sound fidelity for both AM and FM, most stations using the technology see its greatest value in pay services, for example, subscription data delivery. IBOC proponents optimistically predict that terrestrial digital radio will completely replace analog radio by 2017 (Fleishman, 2005).

WEB RADIO AND PODCASTING

Radio’s convergence with digital technologies is nowhere more pronounced and potentially profound than in **Web radio**, the delivery of “radio” directly to individual listeners over the Internet, and in **podcasting**, recording and downloading of audio files stored on servers, or, in the words of *Fortune*

technology writer Peter Lewis, “Simultaneously a rebellion against the blandness of commercial radio, a demonstration of time shifting for radio, just as TiVo allows time shifting for television, and a celebration of the Internet’s power to let individuals offer their own voices to a global audience” (2005, p. 204).

First, Web radio. Tens of thousands of “radio stations” exist on the Web in one of two forms. *Radio simulcasts* are traditional, over-the-air stations transmitting their signals online. Some simply re-create their original broadcasts, but more often, the simulcast includes additional information, such as song lyrics or artists’ biographical information and concert dates. To find one of the more than 20,000 online simulcasts worldwide, simply search the Web using a station’s call letters or go to radio-directory.com or www.live365.com.

Bitcasters, Web-only radio stations, can be accessed only online. The thousands of Web-only stations are either fee-based commercial operations such as www.spinner.com offering multiple channels of music, free of commercials and DJ chatter, or they are narrowly targeted bitcasts, such as www.khaha.com, a Los Angeles comedy station, and www.cprxtreme.com, a Christian station Webcasting from Glendale, California. To access Web radio, users must have file compression software such as RealPlayer (available for free at www.real.com) that permits **streaming**, the simultaneous downloading and accessing—playing—of digital audio or video data.

Podcasts, however, because they are posted online, do not require streaming software. They can be downloaded, either on demand or automatically (typically by subscription), to any digital device that has an MP3 player, including PCs, laptops, and iPods. The necessary downloading software is available online for free at www.ipodder.org. You probably already have the required uploading and recording software, the free Audacity MP3 recorder bundled with Windows. It’s also available for Macintosh PCs and those that rely on the Linux operating system.

Nearly 10,000 podcasters are now online, and they cover every conceivable topic on which an individual or organization cares to comment. And while podcasting was begun in earnest in 2004 by individual techies, audio bloggers, and DJ-wannabees, within a year they were joined by “professional” podcasters such as record companies, commercial and public radio stations, and big media companies like ESPN, CNN, Bravo, and Disney. Technologists predict that by 2010, as MP3 players become more popular and as broadband Internet access becomes more prevalent, podcasting will be standard Web usage in 12.3 million American homes (Ho, 2005).

DIGITAL TECHNOLOGY

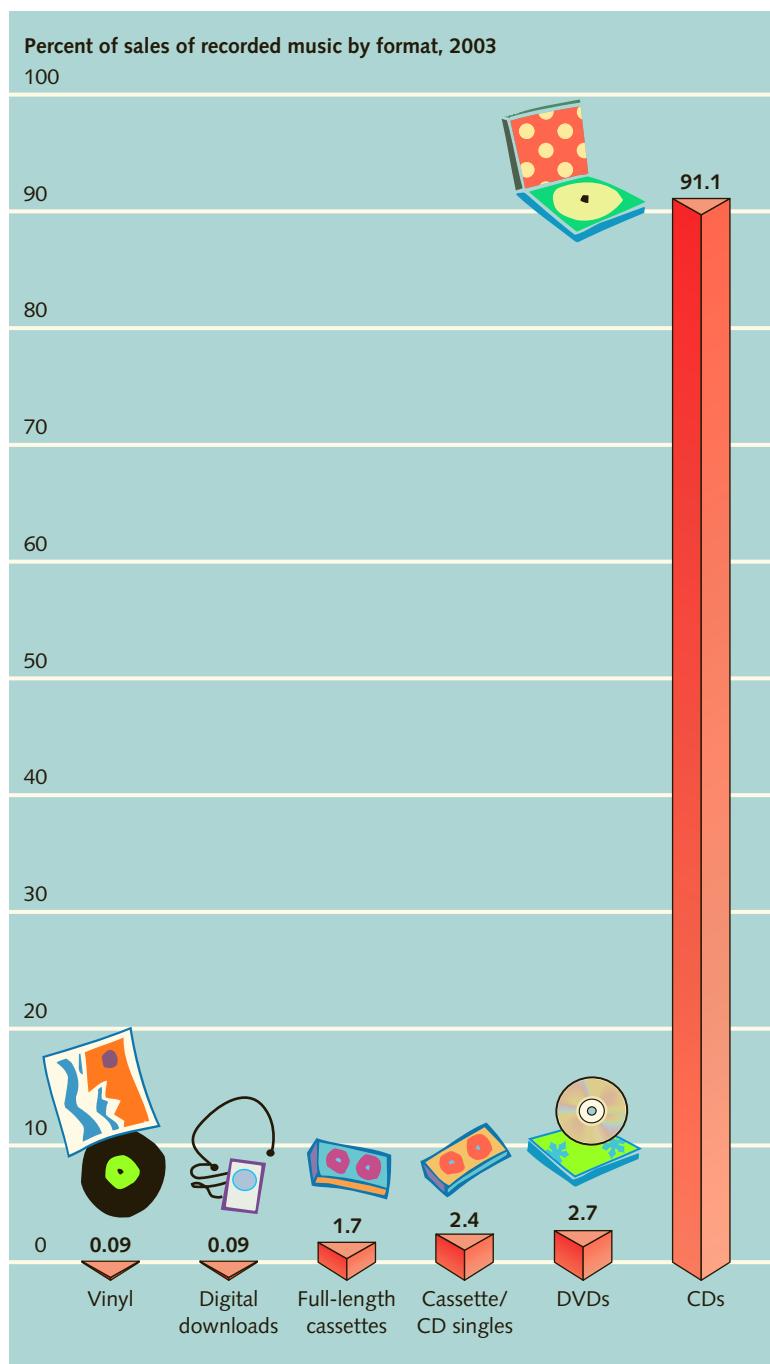
In the 1970s the basis of both the recording and radio industries changed from analog to **digital recording**. That is, sound went from being preserved as waves, whether physically on a disc or tape or through the air, to conversion into 1s and 0s logged in millisecond intervals in a computerized translation process. When replayed at the proper speed, the resulting sound was not only continuous but pristine—no hum, no hiss. The CD, or compact disc, was introduced in 1983 using digital coding on a 4.7-inch disc read by a laser beam. In 1986 *Brothers in Arms* by Dire Straits became the first million-selling CD. In 1988 the sale of CDs surpassed that of vinyl discs for the first time, and today CDs account for 90% of all music sales (Figure 7.5).



For more information on this topic, see Media Talk video clip #13, “Radio of the Future May Be on the Internet,” on the *Media World* DVD.



Figure 7.5 Sales of Recorded Music by Format, 2004. *Source:* Adapted from Record Industry Association of America (www.riaa.com).



Sirius Radio
www.siriusradio.com

Convergence with computers and the Internet offers other challenges and opportunities to the radio and recording industries. The way the recording industry operates is likely to be altered by the Internet. Traditionally, a record company signs an artist, produces the artist's music, and promotes the artist and music through a variety of outlets but primarily through the distribution of music to radio stations. Then listeners, learning about the artist and music through radio, go to a record store and buy the music. But this is rapidly changing. Head of Country Music Television, Brian Philips, explains, "The old logic of just get something played a lot on the radio and it will sell seems less and less to be predictably true. . . . The winners these days are



It isn't only unknown indie bands gravitating to the Net to get their music to fans. The Beastie Boys are among the big-name artists going online.

people who can imagine beyond the narrow limitations of the old system" (in Klaassen, 2005c, p. 12). Using the Internet to "imagine beyond the old system" takes a number of forms. One is promotion. Although radio remains the main driver of music sales, labels, big and small, are using direct-to-consumer Net campaigns to boost their artists. Another is distribution. Numerous sites exist at which consumers can buy recorded music. CD Universe (cduniverse.com) and Amazon.com are two of the better known. With the appropriate software, users can sample music before they buy it.

But artists themselves are using the Internet for their own production, promotion, and distribution, bypassing radio and the recording companies altogether. Musicians are using their own sites, social networking sites such as MySpace (www.myspace.com), and sites designed specifically to feature new artists, such as purevolume.com, to connect directly with listeners. Fans can hear (and in some cases, even download) new tunes for free, buy music downloads, CDs, and merchandise, get concert information and tickets, and chat with artists and other fans. You may never have heard of the bands Hawthorne Heights, My Chemical Romance, or Relient K, but using the Internet they have created "a new middle class of popular music: acts that can make a full-time living selling only a modest number of discs, on the order of 50,000 to 500,000 per release" (Howe, 2005a, p. 203). Big-name artists, too, are gravitating to the Web. Public Enemy released *There's a Poison Going On* exclusively online through Atomic Pop (www.atomicpop.com) and the Beastie Boys' 2004 *Call Me, Boroughs* appeared simultaneously online and in stores.

WWW

Online Music Sites
WWW.
purevolume.com
atomicpop.com

The Internet and the Future of the Recording Industry

This direct-to-fans model of production, promotion, and distribution is giving rise to what intellectual property expert Eben Moglen calls the "Pay Artists, Not Owners" movement. Because of the Internet, he writes,

"Audiences and artists don't need the middlemen anymore. Their reason for being is defunct" (2003, p. 32). How this seismic shift in the music industry will eventually play out is still open to question, but the revolution began with the development of **MP3** (for MPEG-1, Audio Layer 3), compression software that shrinks audio files to less than a tenth of their original size. Originally developed in 1987 in Germany by computer scientist Dieter Seitzer at the University of Erlangen in conjunction with the Fraunhofer Institute Integrierte Schaltungen, it began to take off in the early 1990s as more users began to hook up to the Net with increasingly faster **modems**. This **open source software**, or freely downloaded software, permits users to download recorded music, and it is available at sites such as www.MP3.com and www.MP3.box.sk. In addition to "brandless" MP3, users can access commercial versions of the software such as MusicMatch, which offers additional features such as selectable levels of audio quality, the capacity to turn music from home CDs into computer files, and compatibility with other audio streaming technology such as Liquid Audio, a2b, MS Audio, and G2.

The crux of the problem for recording companies is that they sell music "in its physical form," whereas MP3, in either its open source or commercial format, permits music's distribution in a nonphysical form. First conceived of as a means of allowing independent bands and musicians to post their music online where it might attract a following, MP3 became a headache for the recording industry when music from the name artists they controlled began appearing on MP3 sites, making **piracy**, the illegal recording and sale of copyrighted material and high-quality recordings, a relatively simple task. Not only could users listen to their downloaded music from their hard drives, but they could make their own CDs from MP3 files and play those discs wherever and whenever they wished. Matters were made even worse for the recording companies when manufacturers such as Diamond Multimedia introduced portable MP3 players, freeing downloaded music from users' computers. And as software such as Napster became popular, users could easily search for and retrieve individual songs and artists from one another's hard drives.

Rather than embrace MP3, the Recording Industry Association of America (RIAA), representing all of the United States' major labels, responded to the threat with a technological solution. But by the time the industry's "secure" technology was ready for release, it was too late—MP3 had become the technology of choice among digital audio fans. The RIAA went to court in January 2000, and it was victorious. Citing MP3.com's database of more than 80,000 albums, a federal judge in New York ruled that the primary application of MP3 was copying and distributing copyrighted material, not simply storing already purchased music. Soon after, the RIAA and MP3.com (the Net's primary distributor of MP3 files) reached a settlement in which the online company paid \$100 million to the record companies in exchange for the right to legally distribute their music. Now, downloading primarily takes two forms—from industry-approved and **P2P** sites.

INDUSTRY-APPROVED DOWNLOADING

Illegal file sharing proved the popularity of downloading music from the Internet. So the five major labels combined to offer three "approved" music download sites—pressplay.com (now napster.com), emusic.com, and music.com.

net.com. All three were operative by 2002, and none did well. They offered downloads by subscription, that is, so many downloads per month for a set fee. In addition, they placed encrypted messages in the tunes that limited how long the song would be playable and where the download could be used and copied. As a result, illegal file sharing continued.

In late 2003 the labels rolled out two nontechnological responses to piracy and declining sales. First, they reduced the price of CDs from an average of \$19 to about \$10. Second, they started suing some of the country's 67 million individual music-downloaders, a public relations disaster. "Suing your own customers is not a sustainable business model," wrote copyright lawyer Eben Moglen (2003, p. 31). There was a technological response as well, but from a computer company. In April of that year Apple Computers unveiled its iTunes Music Store, featuring the simple sale of albums and individual songs for as little as 99 cents. Apple controlled only 5% of the PC market, yet it sold over a million tunes in its first week of operation. The company immediately announced an upcoming Windows version, and similar services quickly hit the Web; buymusic.com and Listen.com's Rhapsody were two. This activity led Warner Brothers CEO Tom Whalley to enthuse, "This is what the people who are willing to pay for music have been looking for all along" (quoted in Oppelaar, 2003, p. 42). For many observers, CEO Whalley's comments signaled the industry's recognition of the inevitability of the cyber revolution. The distribution and sale of music by Internet would soon be the standard. That future is at hand: In the first half of 2003, more than 600 U.S. brick-and-mortar music stores closed their doors (Kava, 2003). Inexpensive, permanent downloads are now available on the industry's formerly unsuccessful legal sites, as well as outlets like Wal-Mart and Starbucks.

P2P Downloading

Illegal downloading does still occur. Sites such as Gnutella, Freenet, Limewire, Morpheus, BearShare, and eDonkey use P2P technologies, that is, peer-to-peer software that permits direct Internet-based communication or collaboration between two or more personal computers while bypassing centralized servers. P2P allows users to visit a constantly and infinitely changing network of machines through which file sharing can occur. The record companies (and movie studios) challenged P2P by suing the makers of its software. In 2005, the Supreme Court, in *MGM v. Grokster*, unanimously supported industry arguments that P2P software, because it "encouraged" copyright infringement, rendered its makers liable for that illegal act. The industry's next challenge, then, is **BitTorrent**, file-sharing software that allows anonymous users to create "swarms" of data as they simultaneously download and upload "bits" of a given piece of content from countless, untraceable servers. BitTorrent now accounts for fully one-third of all data sent across the Net (Thompson, 2005) and one-half of all illegal file-sharing ("File-Sharing," 2004).

No matter what model of music production and distribution eventually results from this technological and



Apple had one answer to piracy: cheap, permanent, go-anywhere downloads.



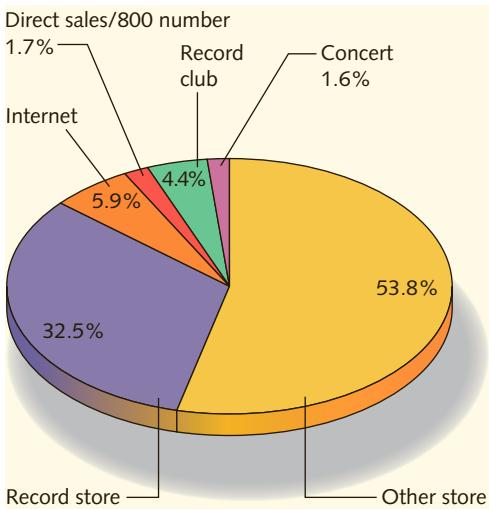


Figure 7.6 Where We Buy Our Music, 2004. Source: Record Industry Association of America (www.riaa.org).

financial tumult, serious questions about the Net's impact on **copyright** (protecting content creators' financial interest in their product) will remain. There is more on copyright in Chapter 14. But for now, the 50 million CD burners (copiers) now in use pose an additional threat. As it is, 40% of today's CD buyers already own this technology, and just under 1.25 billion blank CDs are sold in North America every year 6 billion worldwide. The labels' response to this threat is copy-proof CDs. The first of these were released in early 2002 to negative reaction from buyers and even from some in the recording industry. "I don't think the technology is perfected to a point where it can prevent copying," said Eminem's manager Paul Rosenberg. "The only thing it's going to do is get the fans angry. People who spend money won't be able to play the disc everywhere they want to, and that isn't fair." This sentiment was echoed by a spokeswoman for Philips, the Dutch

electronic company that invented the CD. "We are concerned about technology that limits the playability of the CD, because multiple uses of the CD in devices has been the foundation of its success," said Jeannet Harpe (both quoted in Cohen, 2002, pp. 43–44). Philips told the labels that it could not use its familiar CD logo on any copy-protected discs. You can see where we buy our music in Figure 7.6.

DEVELOPING MEDIA LITERACY SKILLS

Listening to Shock Jocks

The proliferation of shock jocks—outrageous, rude, crude radio personalities—offers an example of the importance of media literacy that may not be immediately apparent. Yet it involves four different elements of media literacy: development of an awareness of media's impact, cultivation of an understanding of media content as a text that provides insight into our culture and our lives, awareness of the process of mass communication, and an understanding of the ethical demands under which media professionals operate (Chapter 1). Different media literate radio listeners judge the shock jocks differently, but they all take time to examine their work and their role in the culture.

The literate listener asks this question of shock jocks and the stations that air them: "At what cost to the culture as a whole, and to individuals living in it, should a radio station program an offensive, vulgar personality to attract listeners and, therefore, profit?" Ours is a free society, and freedom of expression is one of our dearest rights. Citing their First Amendment rights, as well as strong listener interest, radio stations have made Howard Stern and other shock jocks like him the fashion of the day. Stern, for example, took poorly rated WXRX in New York to Number 1, and, as Infinity Broadcasting's top attraction, he was syndicated throughout the country where he was free to pray for cancer to kill public officials he did not like, joke constantly about sexual and other bodily functions, make sexist, homophobic, and misogynistic comments, and insult guests and callers. The FCC fined stations carrying Stern more than \$1 million, a move called harassment and censorship by his supporters. But when Infinity began pulling Stern from the air in response to the FCC's anti-indecency crusade following the 2004

LIVING MEDIA LITERACY

College Radio

There are few better ways to make media literacy a living enterprise than by becoming a mass communicator yourself—in other words, by engaging in the media. The Internet does indeed make us all potential mass communicators (see Chapter 9), but it does not require us to work within a larger organization, to produce content as part of a group, to meet preexisting audience expectations, or to conform to formal and informal rules and regulations of operation, all those things identified in Chapter 1 as giving mass communication its essential nature. So, if you want to test your own media literacy values in a true mass media setting, check out college radio.

Most colleges and universities have a radio station. In fact, many have two—a student-run noncommercial station and an NPR affiliate. For example, Southampton College in New York has WLIU-AM and WPBX-FM; the University of Massachusetts in Amherst has WMUA-FM and WFCR-FM. Naturally, the student-oriented stations may offer more freedom, whereas an NPR station may offer a more

formal professional experience, but both are committed to programming that prioritizes *public interest over what the public is interested in*. In other words, noncommercial college radio offers real media experience with content variety and diversity, the opportunity to program for bounded cultures, extended freedom of speech and expression, and, very often, more individual creative control.

There are numerous sources to which you can turn to help you use college radio to bring your media literacy to life. Metal Index (www.metalindex.com/bands/M/) and the Intercollegiate Broadcast System (www.ibsradio.org) offer information on starting, operating, and improving college radio. In addition, the British Broadcasting Corporation (www.bbc.co.uk/info/), NPR (www.npr.org), and Public Radio International (www.pri.org/PublicSite/home.html) provide information on how to do public service broadcasting. If you are not on a campus that

has a station, use any of the online radio station sites identified earlier in this chapter to search for a college station near you. Virtually all college stations welcome volunteers from the community, especially other college students.

NONCOMMERCIAL COLLEGE RADIO OFFERS REAL MEDIA EXPERIENCE WITH CONTENT VARIETY AND DIVERSITY, THE OPPORTUNITY TO PROGRAM FOR BOUNDED CULTURES, EXTENDED FREEDOM OF SPEECH AND EXPRESSION, AND, VERY OFTEN, MORE INDIVIDUAL CREATIVE CONTROL.

Janet Jackson/Super Bowl breast-baring incident (Chapter 14), Stern moved his show to satellite radio provider Sirius. He may have fled the AM and FM dials but his 5-year satellite contract worth \$500 million suggests he maintains a large and loyal audience.

Media literate listeners must ask themselves if Stern's "Guess the Jew" contest is just a joke. They must ask themselves if his public prayer for the spread of an FCC commissioner's prostate cancer is just hyperbole. When he teases female guests about the size and shape of their body parts, is this just an example of his provocative interviewing style? When he speaks dismissively about Hispanics and African Americans, is this just a device to tease listeners? Media literate listeners ask if Opie and Anthony's having-sex-in-risky-places contest is simply good fun, even as the Infinity Broadcasting's afternoon shock jocks broadcast, live, a couple's coupling from inside New York's St. Patrick's Cathedral ("N.Y. Shock Jocks," 2002).

If you're Jewish, if one of your parents has cancer, if you're a member of a minority group targeted by Stern, if you're a Catholic (or respect religion), the answer to these questions may not make a difference. But you have a choice, say shock jock defenders: You can switch the station or turn off the radio. This poses a problem for the media literate listener. Literacy demands an understanding of the importance of freedom not only to the operation of our media system but also to the functioning of our democracy. Yet literacy also means that you cannot discount the impact of the shock



Media literate listeners can, and do, disagree about the value of shock jocks like Howard Stern.

jocks. Nor can you assume that their expression does not represent a distasteful side of our culture and ourselves.

Media literate consumers also know that Howard Stern, Opie and Anthony, and the other shock jocks exist because people listen to them. They are popular for a reason. Are programs such as Stern's merely a place in which the culture is contested (Chapter 1)? Are they a safe place for the discussion of the forbidden, for testing cultural limits? In fact, a literate listener can make the argument that Stern and others like him play an important cultural role, as do his fans, who see him as "a hypocracy-buster, a truth-teller, a scatalogical safe" (Cox, 2005).

Do you listen to shock jocks? If you do, how do you justify that listenership? Media literate radio listeners ask and answer these questions.

RESOURCES FOR REVIEW AND DISCUSSION

Chapter Review

- Guglielmo Marconi's radio allowed long-distance wireless communication; Reginald Fessenden's liquid barretter made possible the transmission of voices; Lee DeForest's audion tube permitted the reliable transmission of voices and music—broadcasting.
- Thomas Edison developed the first sound recording device; Emile Berliner's gramophone improved on it as it permitted multiple copies to be made from a master recording.
- The Radio Acts of 1910, 1912, and 1927 and the Communications Act of 1934 eventually resulted in the FCC and the trustee model of broadcast regulation.
- Advertising and the network structure of broadcasting came to radio in the 1920s, producing the medium's Golden Age, one drawn to a close by the coming of television.
- Radio stations are classified as commercial and noncommercial, AM and FM.

- Radio is local, fragmented, specialized, personal, and mobile.
- Deregulation has allowed concentration of ownership of radio into the hands of a relatively small number of companies.
- Four major recording companies control 88% of the recorded music market in the United States.
- Convergence has come to radio in the form of satellite and cable delivery of radio, terrestrial digital radio, and Web radio and podcasting.
- Digital technology, in the form of Internet creation, promotion, and distribution of music, legal and illegal downloading from the Internet, and mobile phone downloading, promises to reshape the nature of the recording industry.
- Shock jocks pose a vexing problem for media literate listeners—are they signs of our culture's coarseness or a forum for the contesting of culture?

Key Terms



Use the text's Online Learning Center at www.mhhe.com/baran5 to further your understanding of the following terminology.

liquid barretter, 000
audion tube, 000
trustee model, 000
spectrum scarcity, 000
affiliates, 000
O&O, 000
format, 000
secondary services, 000
playlist, 000
billings, 000
deregulation, 000
duopoly, 000
average quarter-hour, 000

cume, 000
rating, 000
share, 000
Low Power FM (LPFM), 000
cover, 000
catalogue albums, 000
recent catalogue albums, 000
syndication, 000
DMX (Digital Music Express), 000
digital audio radio service
(DARS), 000
terrestrial digital radio, 000
in-band-on-channel (IBOC), 000

Web radio, 000
podcast, 000
bitcasters, 000
streaming, 000
digital recording, 000
MP3, 000
modem, 000
open source software, 000
piracy, 000
P2P, 000
BitTorrent, 000
copyright, 000

Questions for Review



Go to the self-quizzes on the Online Learning Center to test your knowledge.

1. Who were Guglielmo Marconi, Reginald Fessenden, and Lee DeForest?
2. How were the sound recording developments of Thomas Edison and Emile Berliner similar? How were they different?
3. What is the significance of KDKA and WEAF?
4. How do the Radio Acts of 1910, 1912, and 1927 relate to the Communications Act of 1934?
5. What were the five defining characteristics of the American broadcasting system as it entered the golden age of radio?
6. How did World War II and the introduction of television change radio and recorded music?
7. What does it mean to say that radio is local, fragmented, specialized, personal, and mobile?
8. What are the four major recording companies in the United States?
9. What are catalogue albums? Recent catalogue albums?
10. How have cable and satellite affected the radio and recording industries? Computers and digitization?
11. In what two forms is music downloaded to mobile phones?
12. Is the size of radio's audience in ascendance or in decline? Why?
13. What are the two forms of Web radio?
14. What is streaming audio?
15. What is P2P technology?

Questions for Critical Thinking and Discussion

1. Would you have favored a noncommercial basis for our broadcasting system? Why?
2. Are you primarily a commercial AM, commercial FM, or noncommercial FM listener? Which are your favorite formats? Why?
3. What do you think of the argument that control of the recording industry by a few multinational con-
- glomerates inevitably leads to cultural homogenization and the ascendance of profit over music?
4. Have you ever been part of a radio ratings exercise? If yes, how honest were you?
5. How much regulation do you believe is necessary in U.S. broadcasting? If the airwaves belong to the people, how can we best ensure that license holders perform their public service functions?

Important Resources



Go to the Online Learning Center for additional readings.

Internet Resources

Radio History

Marconi

DeForest

Federal Communications Commission

National Public Radio

Public Radio International

Pacifica Radio

Arbitron

Record Industry Association of America

Billboard magazine

Future of Music Coalition

Rock Out Censorship

XM Radio

Web Radio

Real Player

Podcasting

Sirius Radio

Online Music Sites

MP3

eMusic

MusicNet

Gnutella

Freenet

www.radiohistory.org

www.marconi.com/home/about_us/our%20history

www.leedeforest.org

www.fcc.gov

www.npr.org

www.pri.org

www.pacifica.org

www.arbitron.com

www.riaa.com

www.billboard.com

www.futureofmusic.org

www.theroc.org

www.xmradio.com

www.radio-directory.com

www.real.com

www.ipodder.org

www.siriusradio

www.purevolume.com

www.atomicpop.com

www.MP3.com

www.emusic.com

www.musicnet.com

www.gnutella.wego.com

www.freenetproject.org

