



Broadcasters Getting Online, Staying On Air

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Zooming technological advancement has forced broadcasters to adjust to wave after wave of change. The industry has transformed nearly every aspect of their operations—how broadcasters deliver programming and how they produce it, and what the audience wants and when they want it.

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Photo montage: Reinvention is the name of the game in broadcasting, as the industry adjusts to keep pace with technology and hold on to its audience. Cable channels abound from New York to New Delhi, while satellite radio and television operations bounce programming around the globe. Audiences enjoy the freedom to customize their news and entertainment choices with such products as TiVo, iPods, and DVDs. (All photographs from AP/Wide World Photos)

American broadcasting glories in its tales of survival and success. Radio survived the challenge of television a half century ago by becoming a portable medium and shifting from an emphasis on drama to music for the commuter. AM radio survived the rise of FM radio by developing news and provocative discussion programming.

Television became the national pastime each evening for a half century. Americans gathered to watch favorite characters, sports, and news coverage of historic events. Television remains Americans' primary source of news and the advertising medium that best catches their attention.

Nowadays, however, changes in technology, audience behavior, and business models shake traditional broadcasting again and again.

The Old Competitors

Despite high-quality music CDs, radio became more profitable than ever in the 1990s after changes in U.S. government regulations allowed consolidation and simultaneous broadcasting of the same programming by multiple stations in a metropolitan area, as well as across many areas. The result, however, was often bland programming that lacked local content.

The Federal Communications Commission licensed 13,450 radio stations in 2003, twice the number that was licensed in 1970. The United States is one of the few countries in the world where commercial radio, with 10,000 stations, dominates over government radio.

Television met its first match when community antenna or cable systems began to import signals from other stations and later added specialized channels such as CNN and MTV. The small, individual franchises began to consolidate into groups as cable moved into metropolitan areas in the 1980s. Television stations tried to hold their audiences by insisting that federal regulations require the cable systems to carry local stations.

More competition came in the 1990s from direct broadcast satellite, the first service with digital signals. Cable, too, launched digital services, multiplying the number of channels from a few dozen to hundreds.

Over time, especially as ownership rules relaxed, broadcasters coped with the competition by acquiring interests in the competition and programming outlets. Now, of the top five U.S. media conglomerates, all own cable television channels and produce at least some kinds of television programs, four own cable distribution systems, four own broadcast television networks and stations, three produce motion pictures, and two own hundreds of radio stations. The interrelationships among these and other top media conglomerates are complex and difficult to follow.

Meanwhile, both radio and television faced audiences that could bypass the broadcast schedule to record programs on audio or videocassettes and replay them at other times. For decades the process was too clumsy and complicated to be an important factor, until the introduction of TiVo (a digital video recording set-top device for personal television) and similar devices that incorporated program schedules, simplified recording, and eliminated commercials. It was the beginning of a decline in the importance of programming schedules and the beginning of a trend toward viewer control.

Then, in the 1990s, households using television

declined, perhaps because people had become too busy to watch television. Movies on DVDs, the Internet, video games, and other new media also competed. The ratio of time spent watching television compared to Internet use was 8-to-1 in 2000 but only 4-to-1 in 2005, according to media investment bank Veronis Shuler.

The Internet presented competitive challenges but also offered opportunities to broadcasters. Research suggested some people used the Internet and watched television at the same time. Television could promote its programs with online news and programming information. A local radio station could present its programs almost anywhere in the world with an Internet connection. Broadcasters could direct audiences to companion Web sites for more detailed news coverage, but they found it more difficult to drive Web audiences to news programs.

Although overall news viewing increased, news producers faced fickle, more fractured audiences. CNN and others provided news, weather, and sports whenever viewers wanted them. A number of regional all-news channels followed. Local and network news expanded program offerings, especially in the mornings.

Deadlines disappeared. News was constantly available and updated. Reporters complained that they had no time to seek out stories because they constantly had to deliver new live reports. The rapid diffusion of 24-hour news and instant Internet messages left newsmakers such as politicians and public relations professionals with little time to react or reflect, especially as the all-news channels fueled the crisis of the moment with new live satellite interviews. Many viewers constantly switched among news, weather, sports, and entertainment programs. Some news programs even promoted the times of upcoming stories to lure channel surfers back if they switched to other channels.

The centerpiece of U.S. network news, evening newscasts, steadily lost viewers for years, despite efforts to make them unique by providing more context and explanation. In 2005, three networks lost to retirement or death the anchormen of their flagship newscasts—personalities who had been powerful presences for decades.

Nevertheless, broadcasters found innovative technology to improve news reporting. News programs featured new realistic graphics, especially weather animations that projected the paths of approaching storms. Live reports via satellite came from anywhere—even an aircraft carrier or military convoy rolling

through a desert. For the first time, ordinary citizens saw war overseas as it unfolded. Reporters embedded with troops in the latest Iraq war also offered personal accounts via Internet blogs in addition to their regular broadcast reports. News remained attractive to viewers and profitable.

Overall, revenues for radio (\$19.3 billion) and television (\$44.8 billion) peaked in 2000 and dipped the following year. Television recovered but radio stayed flat. Cable continued to increase steadily.

Radio's problems were deeper, with a 13-percent audience decline between 1995 and 2005. Declining ad revenue—and thus station values—led some group owners to huge losses of, for example, \$17 billion in 2002 and \$4.9 billion in 2005 by Clear Channel, the largest radio group. In 2004, Clear Channel reduced time allotted for promotions and commercials by 20 percent to help keep listeners who seemed dissatisfied by too many commercials. The strategy raised prices and encouraged shorter commercials. This year, there is some evidence the strategy may be working, but radio still faces other problems, including a new payola (paying cash or gifts in exchange for airplay) investigation. Satellite radio continues to grow as an alternative to commercial radio, and further competition comes from the iPod and similar digital devices that make music portable and convenient.

The iPod and its cousins can store radio content and replay it. The process, called podcasting, is like TiVo for radio. Content ranges from national network broadcasts to blog-style, home-grown productions.

Listeners have long been able to record radio and play it back with portable devices, but never have audiences had so much content, variety, quality, and control, and the ability to easily manage and manipulate content.

The television industry for years has anticipated its next step in improved quality—high-definition television

(HDTV). Now it is finally arriving, years late.

Digital broadcast radio was also under development for years, with the promise of offering CD-quality and dramatically improved reception, but the industry lacked enthusiasm for making the huge investment necessary for such a broad upgrade. The technology enables a radio station to continue to send its regular analog signal and multiple digital signals.

The New Competitors

Perhaps television and cable broadcasters would have strolled into the 21st century with HDTV, new channels, and not much else had it not been for two technological breakthroughs in the 1990s—affordable broadband Internet service and video compression.

The broadband services were DSL (digital subscriber loop), developed by telephone companies, and cable modems, developed by the cable TV industry. These services provided high-speed, affordable Internet service to homes and small businesses.

Digital video compression numerically describes every bit of information in a frame of video, finds redundant information or information humans don't perceive, summarizes it, and discards what's not necessary. The resulting streamlined signal fits on computer hard drives and even travels on the Internet. Dozens of these compressed signals fit in electronic pipes and pathways that once handled only one

video signal. With greater storage, processing power, and throughput, desktop computers can easily play and even edit video, dramatically lowering the entry barriers for small, independent video producers.

Digital video compression made possible new digital television standards, approved by the federal government,



Photo montage: Satellite radio, interactive television, and digital video are just a few of the recent innovations in broadcasting technology. (All photographs from AP/Wide World Photos)

that require television stations to convert from analog to digital broadcast channels and signals by 2009. After years of reluctance to make the investments to convert, most stations are finally broadcasting in one or more of the new digital standards, often including HDTV. Digital television sets have become more affordable, and consumers are finally buying them. HDTV's big screens might even attract the family back together in the living room to watch again, except that the television screen is also growing smaller and more mobile for the individual viewer, as well as larger.

With commercial radio's challenges from the iPod in mind, networks jumped at the chance to make prime-time programs available at \$1.99 each when Apple created a new iPod that could show video. Early evidence indicates the move may help ratings.

Nevertheless, the new media threaten the future of the lucrative traditional television advertising model. Two alternate funding methods are fees per item and subscription. Anyone can put videos on Google for

free distribution or for purchase. Pay-per-view network programs are also available on cable and direct broadcast satellite television, much like pay-per-view movies. Now production companies, writers, actors, networks, and others are disputing how these revenues should be distributed.

Broadcasters can expect more challengers, both small and large, as the Internet delivers more video. Telecommunications and information technology companies are already rolling out IPTV (Internet protocol television). Who knows what new Internet video will come from new companies and young independent producers? Be assured, however, that most traditional broadcasters will be in the fray with their considerable resources, experience, and a heritage of survival and success. ■

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