

RADIO AND TELEVISION BROADCASTING IN TURKEY AND ITS HISTORICAL EVOLUTION

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ABSTRACT

Communication, one of humanity's fundamental needs, has always been the core activity in interpersonal relationships, leading to the invention of new tools and techniques to facilitate interaction. The communication process is based on shared concepts agreed upon by both the producers and consumers of content. Each invention has accelerated, simplified, and diversified communication. The development of communication tools has paralleled human progress, with technologies emerging from societal changes and, in turn, driving transformations. From the first hand-written books to today's digital broadcasts, communication technologies have undergone significant evolution worldwide. These tools have influenced and shaped individuals' daily habits, emotions, thoughts, family lives, societal reactions, psychology, and political views. People rely on the media for news, entertainment, and information, and the media continuously innovates to meet consumer expectations. The evolution of media has been shaped and continues to be influenced by various factors, including technological advancements and political, social, and cultural changes. With the advent of computers and, later, the internet, new media has provided opportunities for communication, personal sharing, socialization, and ego gratification. While new media has presented people with opportunities they could never have imagined, it has also significantly reduced face-to-face communication and led to the disappearance of many cultural values, giving rise to new cultural values. In this context, the study examines the evolution and development of radio and television broadcasting—among the most influential and widely preferred mass communication tools—in Turkey. It addresses not only the formal impacts of technological advancements but also the content-related changes in productions.

Keywords: Media Technologies, Radio, Television, Broadcasting, Turkey

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TÜRKİYE'DE RADYO-TELEVİZYON YAYINCILIĞI VE TARİHSEL SÜREÇTEKİ DEĞİŞİMİ

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ÖZ

İnsanoğlunun temel ihtiyaçlarından biri olan iletişim, her dönemde kişilerarası ilişkilerin ana eylemi olmuş ve iletişim kurmak için yeni araç ve teknikler icat edilmiştir. İletişim sürecinin temelini, içeriği üreten ve tüketenlerin üzerinde anlaştıkları ortak kavramlar oluşturmuştur. Her buluş iletişim eylemini biraz daha hızlandırmış, kolaylaştırmış ve farklılaştırmıştır. İletişim araçlarının gelişimi bir bakıma insanlığın gelişimi ile paralel gitmiş, teknolojiler toplumsal değişimlerden kaynaklanmış, değişimlere yol açmıştır. El ile yazılan ilk kitaptan günümüzün dijital yayınlarına kadar, iletişim teknolojileri dünya genelinde büyük bir gelişim süreci geçirmiştir. Bu araçlar süreç içinde bireylerin gündelik alışkanlıklarını, duygularını, fikirlerini, aile hayatlarını, toplumsal tepkilerini, psikolojilerini, siyasi görüşlerini etkilemekle birlikte bunlara yön veren bir güce sahip olmuştur. Bireyler, haber, eğlence ve bilgi için medyaya güvenmekte ve medya da tüketicilerin beklentilerini karşılamak için sürekli olarak yenilikler yapmaktadır. Medyanın gelişim süreci; teknolojik ilerlemeler, siyasi, sosyal ve kültürel değişimler gibi birçok faktörün etkisiyle şekillenmiş, şekillenmektedir. Bilgisayar ve sonrasında internet ile ortaya çıkan yeni medya, iletişimin yanı sıra kişisel paylaşım, sosyalleşme ve ego tatmini için de fırsatlar sağlamıştır. Yeni medya insanlara hayal bile edemeyecekleri fırsatlar sunmuş ancak yüz yüze iletişimi büyük ölçüde ortadan kaldırmış ve birçok kültürel değerın kaybolmasına yenilerinin oluşmasına yol açmıştır. Bu çerçevede çalışmada en etkili ve en çok tercih edilen kitle iletişim araçları olan radyo ve televizyon yayıncılığının evrimi ve Türkiye'deki gelişimi ele alınmaktadır. Çalışmada, teknolojik ilerlemenin biçimsel etkisinin yanı sıra yapımlardaki içeriksel değişikliklere de yer verilmektedir.

Anahtar Kelimeler: Medya Teknolojileri, Radyo, Televizyon, Yayıncılık, Türkiye

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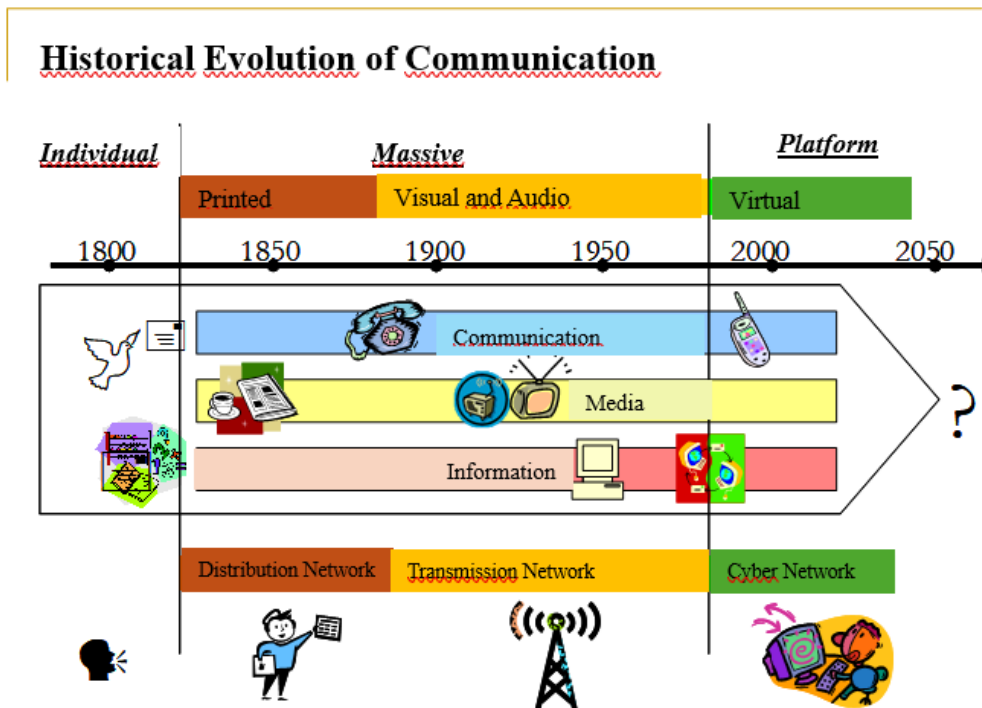
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INTRODUCTION

As media historians Asa Briggs and Peter Burke (2005) observed, every significant invention has "a shift in historical perspectives." Electricity altered humanity's perception of time, as work and leisure were no longer tied to the daily rhythms of sunrise and sunset; wireless communication diminished distances; and the internet revolutionized how we store and retrieve information.

As an extension of the tools used to convey messages, media has evolved into a mechanism that shapes agendas and delivers messages to individuals through entertaining content. Written, auditory, and audiovisual communication tools have transmitted mass messages for many years. The digital revolution, however, stands as the most significant turning point in media history.

During the process known as the digital revolution, new communication technologies gave rise to new media, which enveloped the world and created networks that influence individuals (Bartsch & Viehoff, 2010, Stöber, 2013, as cited in Cereci, 2023).

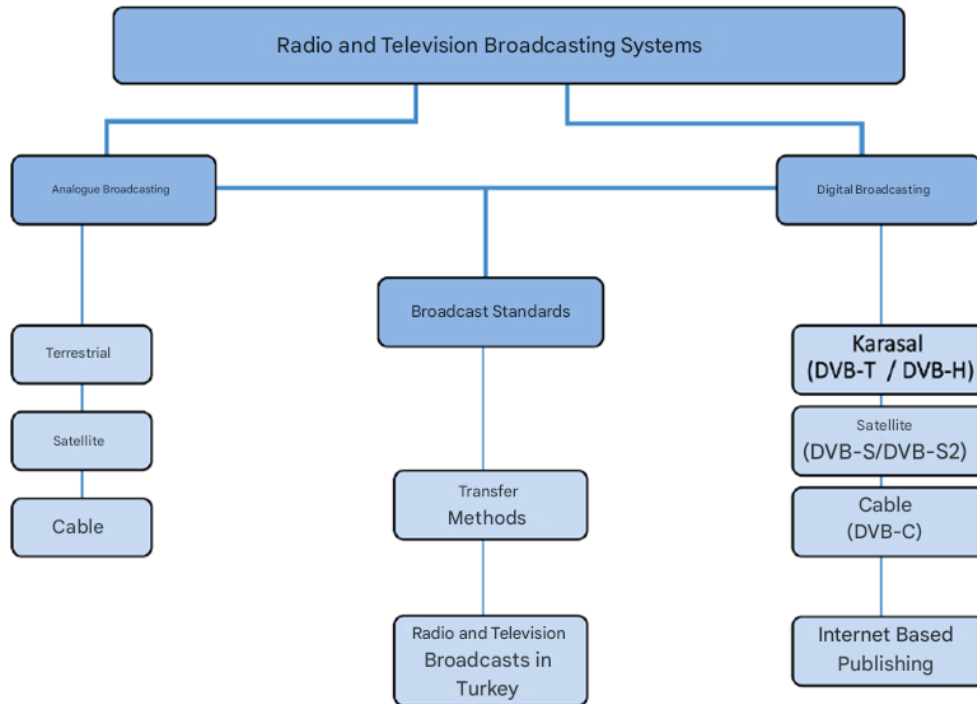


(Polat, 2009)

The modern era has brought numerous conveniences and an abundance of free time for individuals. People sought to utilize this free time effectively and escape the stresses of the age. In the fast-paced rhythm of modern life, individuals, fatigued both physically and mentally, gravitated toward tools that entertained without exhausting them (Coccoli, 2017, Maasen, 2013, as cited in Cereci, 2023). During this period, the media stepped in to meet these needs.

Over time, the media sector's activities in which technology is remarkably prevalent, have become increasingly digitized. While traditional broadcasting continues, every media organization has adapted to changing times. Following the era of analog broadcasting through terrestrial, cable, and satellite systems, the use of digital technologies and the establishment of telecommunications networks have significantly contributed to both the form and content of radio and television broadcasting.

The development and implementation of radio and television broadcasting techniques have not only identified new needs on a global scale but also directed the progression and dimensions of technological advancements. Furthermore, radio and television broadcasting, which emerged as a significant economic sector, has undergone a transformative journey. From the initial inventions and experimental broadcasts of the 19th century, through their intensive use during the First and Second World Wars, to their adoption of digital systems with the invention of tube-based computers in the 1950s and their integration into daily life in the 1970s, these two mediums have become the most preferred mass communication tools.



Özkoçak, 2018

Despite the limitations and inadequacies of analog broadcasting techniques, digital broadcasting systems have seen significant advancements. These systems have introduced high-quality sound and image transmission and allowed for broader applications through the data they carry, ushering in a new era in broadcasting. Television and radio channels capable of broadcasting analog and digital signals have evolved into multi-channel structures. By consolidating interactive systems at a central hub (head-end), they deliver high-quality sound and images through fiber optic or coaxial cable networks.

Broadcasts in broadband environments offer better quality and are more seamless than analog transmissions. Digital systems also support additional services such as telephony, Internet, and Video on Demand (VoD), although users are charged separately.

While cable broadcasting is unaffected by weather conditions, its delivery to households requires substantial investments. Furthermore, geographical constraints prevent it from achieving widespread coverage. Satellite broadcasting, which transmits radio and television broadcasts to receivers via satellite (encrypted or unencrypted), is

free from such limitations. It offers high-quality transmissions and broad coverage, making it a highly effective broadcasting method.

Radio Broadcasting

In the 1920s, radio broadcasting became publicly accessible, and the first radio stations were established. Particularly in villages and rural areas, radio had a significant impact as a source of information and entertainment. Turkey's first official radio station, Istanbul Radio, was established in 1927, laying the foundations for radio broadcasting in the country.

The 1960s witnessed notable advancements in radio broadcasting, with music and discussion programs gaining popularity, particularly due to the positive influence of younger generations.

Satellite technology, which enabled radio broadcasts to reach multiple continents with uninterrupted and high-quality sound, played a critical role in the digitization of radio. In 1994, software developed by Microsoft allowed computer users to broadcast via the Internet, ushering in a new era for radio broadcasting. Internet radio introduced innovation by allowing users to access various content while simultaneously performing multiple tasks. For instance, users could retrieve information about the songs being played and utilize other features of their devices (e.g., reading news, browsing galleries) while listening to broadcasts.

Internet broadcasting also enabled the rise of "podcasting," which allowed serialized radio programs and other media content to be downloaded onto computers or mobile devices and consumed anytime, anywhere.

After print media, radio emerged as a popular mass communication tool due to its unique features, including audio-based content, easy accessibility, and simple production processes. Radio solidified its role as a critical source of news and propaganda, especially during wartime. Although radio's influence began to wane with the invention and proliferation of television and other communication technologies, it has recently sought to regain prominence by adapting to new technologies. Radio relies on its unique characteristics and historically strong and established societal position in this process.

Significant changes and advancements in radio broadcasting have occurred in recent years. Developed in the late 19th and early 20th centuries, radio originates from

the efforts of Marconi, Tesla, and other scientists and inventors who worked on wireless communication technologies. In the 1920s, the first public radio broadcasts and stations emerged. Radio signals were primarily transmitted using AM (Amplitude Modulation) during this period. In the mid-1930s, FM (Frequency Modulation) technology, developed by Edwin Armstrong, introduced better sound quality and noise reduction, enabling higher-quality broadcasts. By the 1940s and 1950s, radio and television broadcasts began to coexist as television gained popularity. FM radio became increasingly popular, and by the 1960s, advancements in both FM radio and television technologies were evident. Stereo FM broadcasts became feasible, and portable radios gained widespread use in the 1970s.

Portable music players like Sony's Walkman revolutionized personal music listening habits. By the 2000s, digital radio technologies such as Digital Audio Broadcasting (DAB) and HD Radio emerged, offering higher sound quality and more channel options. Internet radio and podcasts experienced a significant rise during this period. Broadcasting over the Internet eliminated geographical boundaries, reaching a global audience.

Radio stations began developing their mobile applications to facilitate listeners' access while the popularity of offline content, such as podcasts, grew.

1. **Digital Radio Broadcasting:** In addition to traditional FM/AM radio broadcasts, digital radio technologies have become increasingly utilized. Digital radio transmits audio in digital formats instead of conventional analog signals. Technologies like DAB (Digital Audio Broadcasting) and HD Radio are prominent in this area.
2. **Internet Radios:** Web-based radio stations broadcasting over the Internet are becoming more popular each day. This allows listeners to access radio broadcasts from anywhere in the world.
3. **Podcasts:** Podcasts are a form of media enabling offline or online consumption of pre-recorded audio content. These programs can cover news, education, entertainment, and more. Podcasts often focus on specific subjects, allowing listeners to choose their preferred content. Podcast platforms are available across various mobile applications, allowing anyone interested to become a content creator.

In 2004, Apple Inc. launched the "Podcast" application on iTunes. This application introduced podcast content that could be accessed online, giving rise to what is now called the "podcast culture" (Yücel, 2020:1306). Alongside advancements in communication technologies, journalism has also evolved, leading to the term "podcast journalism."

Radio stations producing podcast content often repurpose their existing broadcasts for the "Podcast" application and/or their websites rather than creating exclusive content for the platform. This has allowed radio programs to be archived online, making them accessible to listeners anytime.

During the COVID-19 pandemic, the Clubhouse platform and Twitter's Spaces platform, both of which offer live audio-streaming services, gained global recognition. These applications, introduced into our lives through new media, are potential alternatives to traditional audio content like radio broadcasting.

4. Mobile Applications

Many radio stations have developed mobile applications or found a presence on existing platforms. These applications allow listeners to access radio broadcasts via mobile phones or tablets.

With the integration of smart devices into daily life, mobile applications have also been developed for radio broadcasts. Radio stations provide their content to listeners through mobile apps, either as live broadcasts or archived programs. A study conducted after 2010, when smart devices became widespread in Turkey, revealed that radio stations with mobile applications on the App Store outnumbered those with national broadcast licenses (Akyazı, 2014). Some radio stations have also created a new marketing environment by incorporating in-app advertisements.

Collective radio broadcasting—allowing users to access all their preferred radio stations via a single app—has become possible through mobile applications.

Radio stations effectively utilize new media opportunities to deliver their broadcasts to listeners in digital environments. Some radio stations broadcast live on YouTube, a popular video-sharing platform. By successfully managing processes such as copyright compliance and technical infrastructure, radio stations can provide uninterrupted live broadcasts 24/7 via YouTube. The ability to follow radio content as an

auditory medium on a visual platform like YouTube exemplifies how new media products diversify radio audiences.

Radio listeners' interest in consuming auditory content is also evident on audiobook platforms. In recent years, mobile applications have emerged that allow users to listen to entire books in audio format.

Audiobook Publishing

The audiobook culture initially emerged in radio broadcasts through the to be continued format. In this method, a portion of a book would be read aloud daily, with the story continuing the following day. This broadcasting technique is believed to have strengthened radio listeners' loyalty to radio programming and their attachment to radio stations.

However, this method has introduced an undefined shift in the target audience, as radio listeners who consume auditory content may turn to audiobooks accessed through mobile devices and the Internet instead of traditional radio.

Digital Music Platforms

The music industry has undergone significant transformations due to digitization. Sales of cassette tapes and CDs have declined, while digital music platforms have gained increasing importance (Ergün, 2016). Mobile music platforms play a crucial role in delivering music to end users while ensuring that contributors in the production chain earn revenue. They have become one of the key components of new media (Uraz, 2019).

A 2019 study revealed that 350 million people globally were using at least one music platform through paid subscriptions (Kumar, 2020). The first digital music platform, iTunes, was launched in 2003 (Uraz, 2019). Spotify, established in Sweden in 2008, competes with Apple Music in Europe and the Americas. In South Korea, the Melon Music Platform, founded in 2004, predated Spotify but has not achieved the same success in the global music market (Parc, 2019).

5. Social Media Integration

Radio stations can promote their broadcasts on social media platforms to expand their audience. Additionally, these platforms are preferred for interacting with listeners and receiving feedback.

6. Local and International Broadcasts

With internet technology, radio stations are no longer limited to serving specific regions. A single radio station can now reach listeners worldwide.

7. Multi-Platform Broadcasting

Many radio stations aim to reach a broader audience by offering traditional broadcasts (FM/AM) and internet-based streams.

The opportunities provided by digitization have given rise to the concept of the "digital listener." The digital listener, enabled by new media, is drawn to interactive content. During this transition, radio audiences have been divided into "traditional listeners" and "digital listeners." The digital listener group interacts with the radio by sending messages or comments via social media, providing real-time feedback.

For example, the Clubhouse platform, which only supports audio streaming, has been described as "digital radio" on various social media platforms. Due to its interactive capabilities, has also been called "interactive radio" (Öztürk, 2017). The option to engage in real-time interaction and dialogue on Clubhouse likely increased its popularity among digital listeners.

Another audio-based platform, Discord, has also experienced rapid growth, particularly with the increasing popularity of digital gaming. Discord allows users to create small and large-scale virtual rooms, send messages, and engage in voice chats (Özcan & Savaş, 2021). The platform can also be used in a forum-like structure for sharing news and information (Bilgin, 2021).

Radio broadcasting in Turkey, paralleling global advancements, has evolved into a dynamic sector that appeals to listeners through diverse content and platforms. Broadcasts are conducted using both traditional terrestrial radio and digital radio technologies.

The technological development of radio in Turkey has progressed in line with the global evolution of radio technology:

1. **Analog Radio Broadcasting (1920s–1980s):** Radio broadcasting in Turkey began in 1927 under the Turkish Radio and Television Corporation (TRT). Radio broadcasts predominantly used analog technology in its early years, employing modulation techniques such as AM (Amplitude Modulation) and FM (Frequency Modulation).

2. **Terrestrial Broadcasting:** Radio signals were transmitted terrestrially via airwaves to households. FM broadcasting, in particular, gained preference due to its superior sound quality and noise reduction features.

3. **Digitalization of Broadcasting Technology (2000s–Present):** Since the 2000s, digital radio technologies such as DAB (Digital Audio Broadcasting) have facilitated higher-quality radio broadcasts. Turkey has gradually adopted these technologies, enabling improved sound clarity and expanded channel options.

4. **Internet Radio and Digital Platforms (2000s–Present):** With the proliferation of the Internet, internet radio and digital platforms have gained prominence in Turkey. Radio stations have overcome geographical limitations and reached audiences worldwide by broadcasting via their websites and mobile applications.

5. **The Rise of Podcasts (2010s–Present):** Podcasts have grown in popularity in Turkey's radio broadcasting landscape. Offering audio content on specific topics, podcasts provide listeners with a unique experience while enabling individuals and institutions to create their own content.

6. **Mobile Applications (2010s–Present):** Radio stations have started developing mobile applications to improve accessibility for their listeners. This has supported the habit of listening to the radio via mobile devices, making it more convenient for users to engage with content on the go.

Many terrestrial radio stations in Turkey also conduct live broadcasts on the YouTube platform.

In March 2022, Demirtaş hosted a Twitter Spaces room titled "The Russia-Ukraine War and Its Economic Impact" on his Twitter account, reaching an audience of 132,000 live listeners. This broadcast reportedly set the global record for the highest concurrent listeners on Twitter Spaces (Demirtaş, 2022). As of 2022, listeners on the Twitter Spaces platform gained the ability to save the content they listened to and store it for up to 30 days (Peters, 2022).

Web radio in Turkey was first introduced in 2005 by Power Media with "Powertürk Web Radyoları." Spectrum Media's "Karnaval Web Radio Platform," launched in 2011, followed this innovation (Kuyucu, 2014). Through these platforms, listeners and users can interact with content by accessing archived broadcasts and sending instant messages.

Radio, described by McLuhan as a "cool" communication medium, has evolved into a more interactive and engaging platform, transforming into a "hot" communication medium by fostering closer interaction with its audience.

The emergence of 5G New Radio technology has recently enhanced the broadcasting landscape. With an expanded frequency range, including mmWave, 5G technology offers better connections for many devices, significantly lower latency, and vast bandwidth capacity.

Television Broadcasting

From black-and-white television broadcasts to 8K streaming platforms, technological advancements have continuously transformed the format of content. Until the 1940s, when the high cost of film materials led to the adoption of magnetic tapes, television broadcasts were primarily live (Hammar, 1994, cited in Dikmen, 2022; Akgöl & Aydın, 2023). RCA introduced the world's first sustainable color television broadcasts in the United States in 1954. RCA's color television system allowed viewers with black-and-white sets to watch in grayscale, while those with color televisions could experience the same broadcast in color. This innovation rapidly gained global traction.

Another milestone in television history was the adoption of satellite technology. The first satellite television broadcast occurred in 1962 via the Telstar satellite, connecting Europe and the United States. The rapid development of satellite broadcasting reduced television broadcasting costs and made it possible to transmit content worldwide.

Since the invention of television, one of the most critical factors has been image clarity or resolution. A groundbreaking development in television imagery was the introduction of high-definition television (HDTV). 1979 Japan's NHK channel established the HDTV standard with a 5:3 aspect ratio and 1,125 lines. HDTV achieved widespread adoption through digital television broadcasting.

The advent of the internet and the increased capacity for data transfer have made internet-based television broadcasting possible, revolutionizing both broadcasting techniques and perceptions. This transformation continues today. Emerging technologies such as Internet Television, Internet Protocol Television (IPTV), and Web TV

enable traditional broadcasts to reach audiences while offering customizable streaming experiences tailored to individual preferences.

Three-dimensional television (3D-TV) broadcasts have also been developed as an alternative to traditional two-dimensional television. Furthermore, high-definition (HD) resolutions have progressed to Ultra HD (UHD-TV) standards, with resolutions advancing to 2K, 4K, and even 8K broadcasts, providing viewers with increasingly sharper and more detailed images.

Television broadcasting in Turkey began with the efforts of İTÜ TV (Istanbul Technical University TV) in 1951, with the first broadcast in 1952. At the time, the university possessed only the necessary equipment to produce live broadcasts, which could not be replayed. All programming was conducted either live from the studio or on location.

In 1968, television broadcasting activities expanded to Ankara, followed by İzmir. The Turkish Radio and Television Corporation (TRT) was established that same year. Between 1968 and 1971, a dual-channel era existed, during which TRT operated in Ankara and İTÜ TV broadcast from Istanbul. In 1971, İTÜ TV's studio at the Maçka campus was transferred to TRT. This marked the beginning of a single-channel broadcasting era, with TRT remaining the sole broadcaster in Turkey until the early 1990s.

Globally, the first dramatic images were broadcast on television in 1928 as silent visuals, with the audio transmitted through radio stations. This demonstrated the parallel development of radio and television broadcasting technologies.

Technological Development of Television Broadcasting in Turkey:

1. **Analog Television (1950s–2000s):** Television broadcasting in Turkey began in the 1950s. During this period, broadcasts were carried out using analog technology. Traditional television sets received broadcasts on VHF (Very High Frequency) and UHF (Ultra High Frequency) channels.

2. **Color Television (1980s):** While the first color television broadcasts were made in the United States in 1954, Turkey's first color broadcast was made in 1984.

3. **Terrestrial Digital Television (2000s–Present):** The transition to digital television broadcasting in Turkey began in the mid-2000s. Terrestrial digital television uses the DVB-T2 (Digital Video Broadcasting-Terrestrial) standard, offering higher resolution, better sound quality, and a wider range of channels.

4. **Satellite Broadcasting (2000s–Present):** Satellite technology is widely used for television broadcasting in Turkey. Many channels are accessible nationwide and even internationally through satellite broadcasts.

5. **Cable TV (2000s–Present):** Cable TV services are also available in Turkey. These services deliver television signals to homes via cable infrastructure, allowing for a broader channel selection and improved image quality.

6. **HDTV and 4K Broadcasting (2010s–Present):** High-definition television (HDTV) broadcasting provides a higher-quality image and sound experience. Additionally, ultra-high-definition (4K) broadcasts are becoming increasingly common.

7. **Smart Televisions and Interactive Content (2010s–Present):** Smart televisions, with their ability to connect to the Internet and run applications, have enhanced the traditional television experience. Interactive content and online streaming platforms now provide viewers with various content options.

Television broadcasting in Turkey strives to deliver higher-quality and more diverse content by keeping pace with technological advancements. Digitization, high-resolution, satellite, and cable technologies have played a significant role in this process.

The first football match broadcast on television in Turkey was a World Cup qualifier between Turkey and the USSR, held on November 12, 1961, at Mithatpaşa Stadium. Since cameras were not allowed inside the stadium, İTÜ TV officials set up a camera on the roof of Taşkışla. The experimental broadcast paired the visuals with Halit Kivanç's radio commentary. Though brief, it marked Turkish history's first live televised football match.

In 1971, during the Mediterranean Games held in İzmir, a bus with a four-camera setup, donated by Germany, was used for live broadcasting. A First Division football match between Karşıyaka and İstanbulspor played at İzmir Alsancak Stadium, was broadcast live to İzmir and its surrounding areas using this vehicle. Another mobile broadcasting vehicle from Germany was permanently connected to Orkut Studios and used as a mobile production unit.

The first cable TV trials in Turkey were conducted in 1980 in the Etiler and Nişantaşı districts by the Middle East Video Enterprises (ODVi), continuing until martial law was declared in 1981. On December 26, 1988, the Turkish Post and Telegraph Organization (PTT) began distributing satellite-received broadcasts to subscribers via

cable in Ankara's Çankaya district. In the 1990s, as analog systems declined and were replaced by digital systems, cable TV infrastructure became more robust and flexible with the advent of digital technology. Utilizing DVB-C (Digital Video Broadcasting-Cable) networks, cable services offered subscribers a wider array of channels and interactive features. Set-top boxes provided by service providers and hybrid fiber-optic connections enabled faster, higher-quality, and uninterrupted services (Kırık, 2015:143-144). Despite its advantages, cable TV in Turkey faced challenges such as being a paid service and insufficient integration into major cities' already strained infrastructure. These issues led to a preference for satellite broadcasting during this period. Viewers opted for free satellite broadcasts or subscription-based satellite services, which did not require a separate access fee.

As of 1984, Turkey became involved in the satellite development processes of Intelsat and Eutelsat. In 1986, development efforts for the Türksat satellite began, with additional support from Intelsat during the same period. By the 1990s, digital broadcasting technologies began to replace analog systems. This transition brought the adoption of Digital Video Broadcasting-Satellite (DVB-S) technology instead of Direct Broadcast Satellites. This new technology made smaller satellite dishes and a broader variety of channels available, enabling broadcasts to encrypted and unencrypted receivers in households or institutions (Kırık, 2015:143).

The launch of the TÜRKSAT 1B satellite into orbit in 1994 marked the beginning of a transformative era in broadcasting. Between 1997 and 2005, the transition to digital broadcasting was completed. Alongside satellite (DVB-S) broadcasts, terrestrial digital broadcasting commenced in 2006, and cable digital broadcasting started in 2008, initially providing eight channels in 17 provinces through Türksat.

2010 TTNET launched Tivibu, Turkey's first IPTV platform, broadcasting in three cities. Over time, alongside the IPTV platform, web television services emerged, allowing users to follow live national channels and access older broadcasts free of charge. Digital platforms broadcasting via satellite, such as Digiturk, began adopting hybrid IPTV models, which combined satellite-based HD and SD broadcasts with internet-based Video on Demand (VOD) services.

By 2015, Turkey's terrestrial broadcasting format transitioned to digital (DVB-T). Following frequency planning and work related to the transition to digital broadcasting,

the Radio and Television Supreme Council (RTÜK) approved the DVB-T2 broadcasting standard and MPEG4 compression technique.

Digital Transformation and Internet Broadcasting

As digital technology advanced, the format of delivered content also evolved. By the late 2000s, the digitalization process had accelerated. During this period, the widespread accessibility of the Internet led to the rise of digital media platforms as alternatives to traditional media. Television programs, series, and films became available for viewing over the Internet.

VoD is a system that allows users to watch content stored on servers anytime and as often as they wish, via television or smart devices. This structure allows users to shape broadcast content according to their preferences and demands. Platforms utilizing the VoD system cater to personal tastes and preferences, offering users control over content creation and broadcast scheduling.

For example, Netflix initially entered the market as a DVD rental service, later transitioning to internet-based services, and eventually expanded worldwide to offer VoD services through subscriptions (Çetindağ, 2018).

IP technology emerged as an alternative to satellite connections, enabling the adoption of REMI (Remote Integration) or remote production models for major events. With the development of digital broadcasting, internet-based television (Web TV, Internet TV, Online TV) gained popularity, supported by the widespread availability of broadband access (DSL, LMDS). The most commonly used terms in streaming technologies include distinctions between "live" and "on-demand" streaming, as well as differences between "true streaming" and "progressive download." Service providers or users often prefer on-demand streaming over live streaming. On-demand streaming requires content providers to host an online library server to store user content. The transition of broadcasts to the Internet has introduced significant diversity, represented by platforms such as Web TV, IPTV, and OTT (Over-the-Top) services. On-demand video services can operate as free services or follow a PayTV model. VoD forms the foundation of OTT services, offering users flexibility and control over their viewing preferences.

IP networks provide an ideal environment for interactive television broadcasting. However, because service providers cannot directly control the quality of IP connections,

digital television broadcasts depend on the quality or intensity of the connection. Internet-based broadcasting offers features such as pausing and resuming broadcasts, rewinding, and accessing enriched additional content. Users can watch desired content anytime (Video on Demand/VoD) and download content to set-top devices or computers.

Until 2007, Digitürk was the sole provider in Turkey's digital satellite broadcasting market. 2007, D-Smart entered the market, followed by Tivibu in 2010 with its IPTV service. In the same year, TTNET launched Tivibu, Turkey's first IPTV platform, integrating TV, mobile phones, and the Internet into a single service.

Emerging sequentially, technologies like VoD (Video on Demand), Web TV, IPTV, and finally, OTT (Over-the-Top) TV have each played a role in transforming and reshaping viewing practices.

Internet TV (Web TV): Internet or Web TV refers to broadcasting conducted in an organized manner by individuals or organizations through their websites. This broadcasting model has become a preferred choice for media companies aiming to compete with one another. Television broadcasting companies have incorporated Web TV into their distribution networks, allowing them to transmit a copy of their traditional channel broadcasts online. In this system, signals transmitted analogically or digitally are converted into low-resolution media formats (e.g., vmw, mpeg4, flv, etc.) using computer-based conversion software and distributed via the Internet (Korkut, 2018).

Internet Protocol Television (IPTV): First introduced in 1995, IPTV refers to free or subscription-based broadcasts delivered via broadband connections (DSL) using the IP protocol.

This broadcasting system enables the creation of a personalized television experience for users. Through IPTV, browsing and viewing items within a pre-recorded media stream in Video on Demand (VOD) broadcasting is possible. For instance, applications like Netflix, defined as media service providers and production companies, allow users to select, pay for, and watch a TV program or film at a desired time (O'Driscoll, 2007, Korkut, 2018).

IPTV and Web TV services differ from one another. IPTV provides Pay TV services, typically viewed on television, but can also be accessed through other media devices (such as TVs, tablets, or computers). IPTV offers VOD services and allows users to interact with the content. It provides more stable broadcasting and features an

electronic program guide (EPG) service. On the other hand, Web TV operates on an advertising-based revenue model, offering free services but only accessible through devices with a direct internet connection. Users can pause and resume Web TV broadcasts but cannot otherwise interact with the content. The quality of Web TV broadcasts depends on the stability of the internet connection, and it does not include an EPG service (Çetindağ, 2018).

OTT (Over-The-Top): Over-The-Top (OTT) services provide content over the Internet without requiring traditional television service providers. OTT services such as Netflix, Amazon Prime, and Disney+ have transformed the television concept by offering users a wide array of content.

Unlike other service providers, OTT does not require additional devices, antennas, or satellite receivers commonly used in television broadcasting. OTT offers downloadable free content or paid VOD (Video on Demand) services, provides live TV broadcasts, and allows users to interact with the content (Roberts and Muscarella, 2015, as cited in Özel, 2020). While IPTV can be accessed through an internet connection using a set-top box or a receiver built into the television, OTT TV systems can be viewed on any screen, such as televisions, computers, tablets, and smartphones. OTT TV is positioned between Internet TV and IPTV. Whereas IPTV requires a private network, an internet connection is sufficient for OTT TV. Additionally, OTT TV is more cost-effective compared to IPTV.

The proliferation of smartphones and tablets has also led to the widespread adoption of numerous applications, further contributing to the growth of OTT TV. In Turkey, various television service providers also offer OTT TV services. Among these are Tivibu Go, TeleDünya Web, D-Smart Go, Digiturk Play, Fil Box Hemen, and Turkcell TV+ (Çetindağ, 2018: 46). While traditional television broadcasting still has a significant audience base today and continues to produce new content, advancing technology and the diversification of screens support this television flow and introduce new viewing platforms. In contemporary studies on television, terms such as IPTV, OTT, Web TV, and VOD are frequently used when discussing television (Özel, 2020).

All the capabilities that OTT TV offers viewers have led to significant changes in the habits of audiences accustomed to traditional television viewing.

Mobile Television Broadcasting: Mobile Television is a platform that delivers television programs or video transmission to wireless devices. In one type of

broadcasting, programs can be transmitted to all users within a certain coverage area or to an individual user. Broadcasts are sent to mobile receivers either analogically or digitally. They can also be transferred to mobile devices via terrestrial or high-power satellites, with the same processes conducted over the internet (Korkut, 2018).

Mobile service provider companies in Turkey have their own Mobile TV Broadcasting networks. These broadcasts are accessible through Vodafone TV and Turkcell TV+ platforms over 3G, 4G, or 4.5G networks. These IP-based broadcasts utilize the user's internet usage rights or the external internet usage rights allocated by the service provider for such broadcasts (e.g., Vodafone TV Red Package as a promotional example).

Cellular internet connections and technological devices significantly support the Mobile TV model, particularly in today's environment, where individual viewing habits are highly prevalent. As mentioned above, Vodafone TV and Turkcell TV are examples of broadcasting services in this field in Turkey. The content provided depends on the services offered by the operator companies. Furthermore, with the widespread use of 4.5G high-speed internet services and smartphones, Mobile TV has gained even more importance. Web TV and OTT TV broadcasts have become easily accessible via mobile devices.

3D Television Broadcasting: 3DTVs are considered the greatest achievement after the introduction of color television. However, one of the primary reasons for the inability of 3D technology to maintain its popularity was the requirement for viewers to wear special glasses. The reluctance to use additional devices while watching at home has deterred viewers from adopting 3D broadcasting. Furthermore, high costs and various side effects have also caused viewers to distance themselves from the 3D viewing experience. According to a study published by Read and Bohr 2014, side effects such as headaches, eye strain, double vision, and nausea were observed among viewers after 3D viewing. Other studies have similarly identified some of these issues, albeit to a lesser extent, indicating the side effects associated with the 3D viewing experience (Read & Bohr, 2014).

Given the lack of interest from viewers, broadcasters have abandoned 3D technology, initially considered to bring a new dimension to television broadcasting. After 2010, television broadcasting transitioned to the Internet. In subsequent years,

including live broadcast features on social media platforms enabled broadcasts to be transmitted through these platforms.

During the same period, television broadcasters in Turkey began actively using social media. Between 2009 and 2015, television channels established social media accounts, sharing corporate and program-specific content on platforms such as YouTube, Twitter, and Instagram (Dikmen, 2017).

Thus, a period emerged in which traditional television broadcasting coexisted with broadcasts on social media platforms. Accessing content and broadcasts through applications on these platforms has changed the viewer experience. Platforms offer a nonlinear, multi-layered structure in contrast to the linear nature of traditional broadcasting, enabling interactions between broadcasters and viewers as well as among viewers themselves.

Technological advancements have led to the emergence of an information society characterized by a societal structure dominated by Internet and computer technologies. This transformation and advancing technology have given rise to internet-based (digital) broadcasting forms such as Web TV, Pay TV, IPTV, and OTT TV. These new internet-based broadcasting systems have contributed to the rapid rise of internet-based series broadcasting globally in recent years, turning the online series industry into a global market. These developments have also found traction in Turkey.

Local next-generation TV platforms in Turkey include Tabi, BluTV, PuhuTV, and Exxen, while global platforms include Netflix. In 2010, Tivibu was launched as Turkey's first Web TV platform. Doğuş Media Group's platform, TVyo, launched in 2012 and was rebranded as PuhuTV after 2016. Similarly, Doğan Holding's platform, Netd, was launched in 2012 and has since continued as BluTV. Netflix entered the Turkish market in 2016, followed by Amazon Prime Video in 2020. In 2021, Exxen, Gain, and beIN Connect began broadcasting. TRT's digital platform Tabii was launched in 2023, offering series, films, programs, documentaries, and original content under the slogan "Turkey's global online broadcasting service."

Platforms like YouTube and Netflix, which provide on-demand video streaming, have emerged as alternatives to traditional television broadcasting. Consequently, the "linear broadcasting" model—where the broadcaster determines the broadcasting

schedule and content—has been replaced by the "Nonlinear Broadcasting" model, allowing viewers to watch content on demand using their preferred devices.

Television platforms have introduced new perspectives and content to broadcasting, differentiating themselves from traditional media. Viewers' active and decision-making role enhances the significance of these platforms. Applications shaped by the new generation's preferences have also facilitated the emergence of new job opportunities in the sector. Platforms utilizing VoD systems have drawn audiences with their unique features.

In his concept of "Post TV," Michael Strangelove addressed the values and habits of current audiences, emphasizing their inclination to access free content. Users perceive internet-based broadcasts as offering a "freer and more democratic" environment than traditional television (2015).

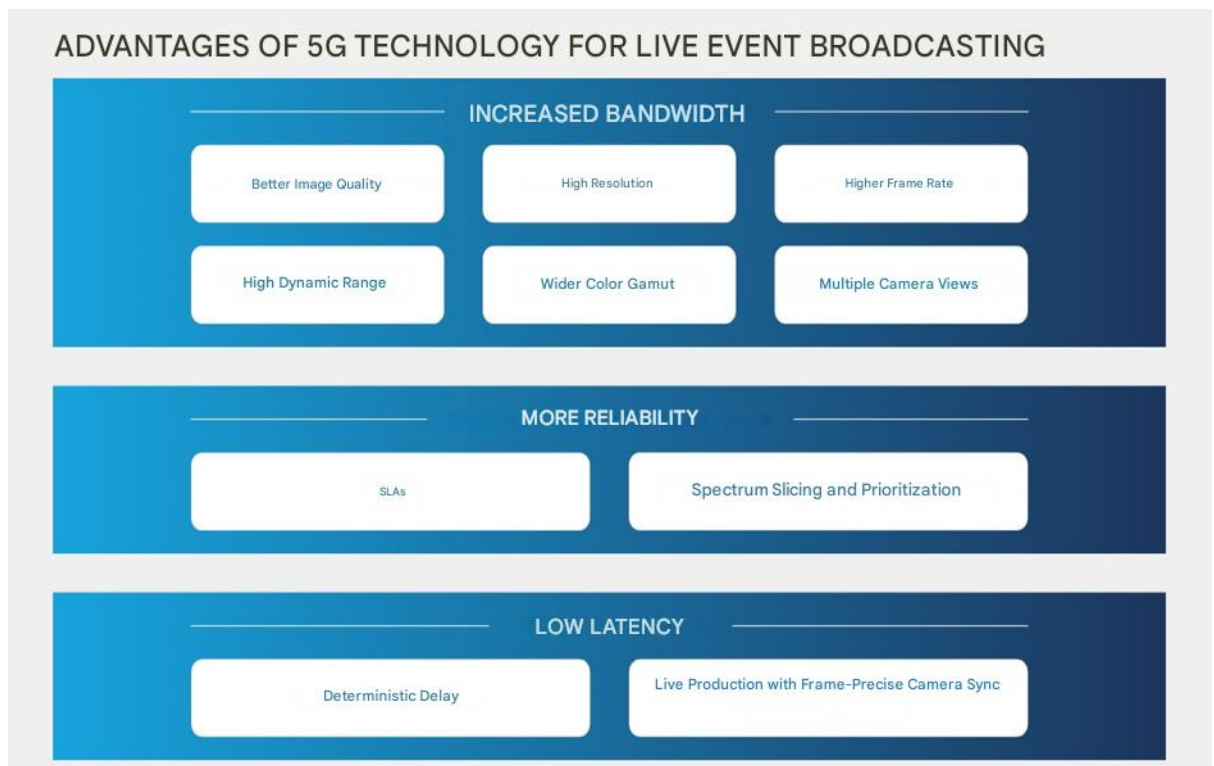
Richter (2019) noted that individuals aged 65 and above, presumed to be retired, dedicate more time to easily accessible traditional television broadcasts due to their large numbers. Meanwhile, younger audiences prefer platforms such as Netflix and Amazon. Similarly, Tikkanen argued that predictions of the demise of traditional television following the advent of OTT services are exaggerated and incorrect (2019).

For scenarios such as outdoor sports events or live news gatherings, bonded cellular technology emerged in the 2010s with the advent of 3G networks. With 4G, bandwidth increased significantly, offering upload speeds of 5 Mbps or more and reaching 50 Mbps with LTE technology. The deployment of 5G services has doubled this bandwidth.

The 2022 Broadcast IP Transformation Report identified 5G as the technology with the greatest anticipated impact on the broadcasting industry for three consecutive years. According to a survey of over 650 broadcasting professionals worldwide, 68% believe 5G will fundamentally transform television broadcasting.

5G network slices, being mobile services, will become as accessible as internet services but with greater reliability, including service-level agreements, reduced latency, and increased bandwidth. This technology, known as Multi-Access Edge Computing (MEC), enables anyone accessing the 5G network to process videos and other data types near their location.

By leveraging virtual and cloud-based technology, 5G offers new advantages for broadcasters. These include dedicated 5G network slices for remote production applications, reducing latency for content delivery's first and last mile. Additionally, 5G edge computing and mmWave technology enable near-zero latency and the processing of large volumes of dynamic video from anywhere, offering immediate benefits through increased bandwidth and reduced latency.



Broadcasterinfo, 2024

New technologies change viewer preferences and viewing habits and empower audiences to influence the flow and content of broadcasts on these platforms. For instance, in the "Bandersnatch" (2018-IMDb/7.2) episode of the series *Black Mirror*, viewers are given the authority(!) to determine how the events unfold. Through options presented at the bottom of the screen, the audience takes an active role in shaping the course of the story.

In this context, studies on new genres referred to as web dramas or internet series have been steadily increasing (Turnbull, McCutcheon, and Lotz, 2017, Strangelove, 2015, 2011, Christian, 2012, El Hibri, 2013, cited in Güler, 2022).

The first example of a web drama in Turkey was *Proje 13*, released in 2008. Other milestones include *Siyah Beyaz Gri* (2011), the first drama web series; *Kutu* (2016), the first science fiction-themed project; *Çizgiyi Geç* (2016), the first Instagram drama; *Masum* (2017), the first professional, ad-free project; *Talib-i İrşadi* (2018), the first historical drama; and *Kanaga* (2018), the first mystical-themed project (Güler, 2022).

Sıfır Bir: Bir Zamanlar Adana, released as a web series on YouTube in 2016, quickly gained a large following. In addition to this series, many producers and creators have used these platforms as stepping stones, capturing the attention of film and advertising companies and signing contracts with larger TV networks. For instance, the first two seasons of *Sıfır Bir: Bir Zamanlar Adana* were broadcast on YouTube, while its third season was acquired and streamed by BluTV, a Web TV platform (Hürriyet, 2024).

These transformations indicate a significant shift in Turkey's media and broadcasting sector, as traditional and digital media boundaries become increasingly blurred and viewer preferences undergo substantial changes.

Since the 1970s, television has become a vital part of Turkish society. Families gathering around the television reflects its integration into social life, and television has profoundly influenced popular culture.

Broadcasting activities in Turkey began in 1990 without any legal framework. The 1993 constitutional amendment ended the public monopoly over radio and television broadcasts, allowing private radio and television broadcasting. In 1994, Law No. 3984 on the Establishment and Broadcasting of Radio and Television Enterprises was enacted, establishing the Radio and Television Supreme Council (RTÜK).

RTÜK is an autonomous and impartial public legal entity that regulates and monitors radio and television activities under Article 133 of the Constitution. The General Assembly of the Grand National Assembly of Turkey elects its members. RTÜK oversees broadcasting licenses and ensures compliance with legal regulations.

Since 1994, RTÜK has represented Turkey in the Council of Europe's media-related activities. Using its legal authority, RTÜK monitors broadcasts and ensures compliance with the principles outlined in laws and regulations via the Digital Recording, Archiving, and Analysis System (SKAAS).

The SKAAS Central Project, conducted by TÜBİTAK between 2006 and 2008, was developed to record, archive, and analyze national, regional, and local television

broadcasts and national radio broadcasts via satellite, cable, and terrestrial channels. Another TÜBİTAK project between 2009 and 2011 allowed local television broadcasts to be transmitted to RTÜK headquarters through communication lines, enabling monitoring directly from local broadcaster studios.

In 1998, the RTÜK Communication Center began operating under ALO RTÜK 178, initially providing live phone support. In July 1999, the service transitioned to an Interactive Voice Response (IVR) system.

In 2019, significant updates were made to RTÜK's audience representation mechanism. This mechanism, crucial for media freedom, ensures that complaints from viewers and listeners are evaluated, presented to the broadcasting organization's committee, and followed up on. The "White Desk" service was also introduced as part of the RTÜK Communication Center in 2019.

RTÜK's initiatives, including the "Audience Representation" and "Broadcasting Ethical Principles" practices, emphasize self-regulation for broadcasting organizations. Initially voluntary, the Audience Representation system became mandatory for all broadcasters following the enactment of Law No. 6112 in 2011 (RTÜK, 2024).

CONCLUSION INSTEAD

In the broadcasting industry, while the message has remained constant, the medium has evolved alongside the trajectory of science and technology, adapting to innovations. Technological advancements will render media content more personalized. Viewers, listeners, and readers now have the opportunity to experience content tailored to their interests through platforms offering customized options. Moreover, with artificial intelligence and other emerging technologies, the media industry is set to provide a more interactive and engaging experience. While the importance of digital platforms in the future of media continues to grow, traditional media channels will also persist. In this process, traditional media organizations must integrate with the digital realm and keep pace with technological innovations.

The evolution of television technology is a prominent example: from small, black-and-white screens with manual controls for volume and channel changes, to wired and then wireless remotes, the introduction of color broadcasts, and later the adoption of plasma and LCD screens in the mid-1990s. Over the years, analog broadcasting has given

way to digital broadcasting, with technologies such as satellite, cable TV, and IPTV significantly shaping the form and content of broadcasting. Television screen resolutions have progressed from standard digital to Ultra HD, 4K, and 8K. HDTVs have improved audio quality, transitioning from mono sound systems to 5.1 channel full surround sound systems, incorporating Dolby Audio technology (Akyol, 2006, Güler, 2022).

Starting with 720x576 (Standard Definition), broadcasting evolved to 1280x720 (HD Ready), then 1920x1080 (Full HD), and eventually reached 3DTVs, taking broadcasting to the next level. 4K televisions, with 3840x2160 resolution—four times the pixels of HD—have now become part of our lives. While 4K broadcasting is not widespread in television, Hollywood films have been shot in 4K and higher resolutions since 2004 (Akyol, 2015). Today, many series, commercials, and even videos recorded on smartphones are captured in 4K technology. For televisions supporting 4K and beyond, the term UHD (Ultra HD) is now commonly used.

Developed by Japan's NHK, this technology enhances viewing experiences for internet broadcasts and downloadable content, offering a broader color gamut than HD broadcasting (Akyol, 2015). Even as the transition from Full HD to 4K remains incomplete, the emergence of discussions around 8K broadcasting and video content is a testament to the rapid advancements in television technology.

From cathode-ray tube televisions, colloquially known as "box TVs," to curved-screen 8K smart touch TVs and beyond, today's households feature various devices. Broadcasters may only offer HD content, yet viewers often own 8K televisions, while some users prefer smart TVs despite not subscribing to any VOD or internet services.

In conclusion, the media industry has undergone a profound transformation driven by digitalization, and this process continues. With advancements in technology and the increasing use of digital platforms, the future of media is anticipated to become more personalized, interactive, and entertaining.

Genişletilmiş Özet

Karasal, kablolu ve uydudan gerçekleştirilen analog yayınlar sonrasında sayısal teknolojinin kullanımı, telekomünikasyon ağlarının kurulması hem biçim hem de içerik açısından radyo-televizyon yayıncılığına önemli katkılar sağlamıştır. Radyo ve televizyon yayın tekniklerinin gelişimi ve uygulanışı; dünya ölçeğinde yeni ihtiyaçlar doğurmuş, ihtiyaçları belirlemiş, teknolojik ilerlemenin yönüne ve boyutuna yön vermiştir. Bu bağlamda radyo ve televizyon yayıncılığı ayrıca önemli bir ekonomik sektör olma özelliği de taşımaktadır.

Analog yayın tekniklerinin sınırlı ve yetersiz kalmasına karşın sayısal yayıncılık sistemleri gelişmiştir. Bu teknolojinin ses ve görüntü iletimindeki yüksek kalitesinin yanı sıra taşıdığı veriler ile daha geniş bir alanda kullanılabilir olması, yayıncılık alanında yeni bir dönemi başlatmıştır. Analog ve sayısal yayınları aynı ortamda yapabilen televizyon ve radyo kanalları, interaktif sistemleri bir merkezde (head-end) toplanarak fiber optik ya da koaksiyel kablo şebekeleri üzerinden yüksek ses ve görüntü kalitesine sahip olan çok kanallı sistemler haline gelmişlerdir. Geniş bantlı yayın ortamı ile yayınlar, analog yayınlara göre daha kaliteli ve kesintisizdir. Sayısal sistemlerde aynı zamanda telefon, internet ve isteğe bağlı video (Video on Demand) gibi hizmetler de verilebilmektedir.

Radyo, ilk olarak 19. yüzyılın sonlarında ve 20. yüzyılın başlarında geliştirilmiştir. Marconi, Tesla ve diğer bilim insanları, kablosuz iletişim teknolojileri üzerine çalışmalar yaparak radyonun temellerini attılar. 1920'lerde, radyo yayını halka açıldı ve ilk radyo istasyonları kuruldu. 1940'lar ve 1950'lerde, televizyonun yaygınlaşmasıyla birlikte radyo ve televizyon yayınları bir arada bulunmaya başladı. FM radyo, daha da popüler hale geldi. 1960'larla birlikte, televizyon ve FM radyo teknolojileri gelişti. Stereo FM yayınları mümkün hale geldi. Taşınabilir radyolar, 1970'lerden itibaren yaygınlaştı. 1994 yılında Microsoft'un geliştirdiği bir yazılım ile bilgisayar kullanıcıları internet üzerinden yayın yapma imkânına sahip olmuştur. İnternet radyosu ile radyo ağları, zengin içerik ve birden fazla işlemi aynı anda yapma olanağı sunarak radyo yayıncılığına yenilik getirmiştir.

Türkiye'deki radyo yayıncılığı, çeşitli içerikler ve farklı platformlar aracılığıyla dinleyicilere hitap eden dinamik bir sektördür. Hem geleneksel karasal radyo hem de dijital radyo teknolojileri kullanılarak yayınlar gerçekleştirilir. Türkiye'de radyonun

teknolojik gelişimi, dünya genelindeki radyo teknolojisinin evrimiyle paralel şekilde ilerlemiştir.

Siyah beyaz televizyon yayıncılığından, 8K yayın yapan platformlara kadar dijitalde teknoloji ilerledikçe, sunulan materyalin biçimi de değişmiştir. 1940'lı yılların sonlarına kadar televizyon programları çoğunlukla canlı olarak yayınlanmıştır (Hammar, 1994). Dünyada sürdürülebilir ilk renkli televizyon yayınlarını 1954 yılında ABD'de RCA firması başlatmıştır. Televizyon tarihindeki bir diğer dönüm noktası uydu teknolojisinin ortaya çıkması olmuştur. Uydu üzerinden ilk televizyon yayını, 1962 yılında Telstar uydusu üzerinden Avrupa ve ABD arasında yapılmıştır. Uydu yayıncılığının hızlı gelişimi televizyon yayınlarının maliyetlerini düşürmüş ve dünyanın her yerine ulaştırılabilir olmalarını sağlamıştır.

Türkiye'de televizyon yayıncılığı, 1951 yılında İTÜ TV'nin çalışmalarıyla başlamış, ilk yayın 1952 yılında yapılmıştır. İTÜ'nün bütçesi sadece yayını gerçekleştirebilecek cihazları almaya yetebilmiştir. Hiçbir zaman kayıt cihazları olmamış, yapılan yayınlar tekrar yayınlanamamış, TV'ye çıkanlar kendilerini izleyememiştir. Tüm yayınlar stüdyodan ya da stüdyo dışından naklen olarak gerçekleştirilmiştir. 1968 yılında Ankara'da sonrasında da İzmir'de yayıncılık çalışmalarına başlanmıştır. 1971'e kadar geçen sürede Ankara'da TRT, İstanbul'da İTÜ TV'nin izlendiği iki kanallı bir dönem yaşanmıştır. İTÜ TV'ye ait her şey ve Maçka yerleşkesinde kurulan TV stüdyosu TRT'ye tahsis edilerek tek kanallı yayıncılık dönemi başlamış, özel TV'lerin açıldığı 1990'ların başına kadar da TRT'nin yayıncılıktaki tekliği devam etmiştir. 1954 yılında ABD'de ilk renkli yayın yapılırken, ülkemizde ise ilk renkli yayının yapılması için 1984'e kadar beklenmesi gerekmiştir.

Türkiye 1984 itibarıyla Intelsat ve Eutelsat'ın uydu geliştirme süreçlerine dâhil olmuştur. 1986'da Türksat uydusu geliştirme çalışmalarına başlamış ve aynı dönemde Intelsat'tan faydalanmıştır. 1990'lı yıllarda analog yayının yerini almaya başlayan dijital yayın teknolojileri sayesinde Doğrudan Yayın Uydularının yerini Dijital Video Yayıncılığı-Uydu (Digital Video Broadcasting-Satellite/DVB-S) almıştır. Bu yeni teknoloji ile daha küçük çanak antenler ve daha geniş kanal çeşitliliği sağlanmış, şifreli ve şifresiz hane veya kurumlarda bulunan alıcılara yayın mümkün hale gelmiştir (Kırık, 2015: 143). TÜRKSAT 1B uydusunun 1994 yılında yörüngeye oturtulmasıyla yayıncılık alanında dönüşüm başlamıştır. 1997'den 2005 yılına kadar sayısal yayına geçiş gerçekleşmiştir. Uydu (DVB-S)

yayınlarının yanı sıra 2006 yılında karasal, 2008’de (Türksat’ın 17 ilde 8 kanalı ile) kablolu sayısal yayıncılığa geçiş süreci başlamıştır. TTNET, 2010 yılında Türkiye’nin ilk IPTV platformu olan Tivibu lisansı ile 3 şehirde yayın yapmıştır. Süreç içerisinde, IPTV platformunun yanı sıra ulusal kanalların canlı olarak takip edilebildiği, eski yayınların kullanıcılara ücretsiz sunulduğu web televizyonları yayına girmiş ve Digiturk gibi uydu üzerinden yayın yapan sayısal platformlar hibrid IPTV modellerine (uydu ile HD ve SD yayınlar, internet üzerinden VOD) yönelmişlerdir.

2015 yılında Türkiye’de karasal yayın formatı; sayısal (DVB-T) olmuş ardından frekans planının hazırlanması ve sayısal yayıncılığa geçiş süreci ile ilgili yapılan çalışmalar sonucunda, ülkemiz için en uygun teknoloji olarak DVB-T2 yayın standardı ve MPEG4 sıkıştırma tekniği Radyo ve Televizyon Üst Kurulu (RTÜK) tarafından uygun görülmüştür. Türkiye’de çeşitli televizyon hizmeti sağlayıcıları OTT TV hizmeti vermektedir. Bunlar arasında Tivibu Go, TeleDünya Web, D- Smart Go, Digiturk Play, Fil Box Hemen ve Turkcell TV + sayılabilir (Çetindağ, 2018: 46). Geleneksel televizyonlar günümüzde halen ciddi bir izleyici kitlesine sahiptir ve pek çok yeni içerik üretmektedir. Gelişen teknoloji ve çeşitlenen ekranlar bu televizyon akışına aslında destek olmakta ve yeni ekranlar sunmaktadır.

Geleneksel televizyon yayınında izleyiciler ancak aynı fiziksel mekânda bulunduğunda birlikte izleyebilirken, canlı yayın platformlarında izleyiciler mekândan bağımsız olarak küresel ölçekte aynı sanal ortamda yayını izleyebilmektedir. Medya endüstrisi, dijitalleşmenin getirdiği yenilikler sayesinde önemli bir dönüşüm yaşamış ve bu süreç hâlâ devam etmektedir. Medyanın geleceği, teknolojideki ilerlemeler ve dijital platformların giderek artan kullanımıyla birlikte, daha özelleştirilmiş, daha interaktif ve daha eğlenceli bir hale gelmesi ön görülmektedir.

Çıkar Çatışması/Conflict of Interest

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Yazarların Katkıları/Author Contributions

Makale tek yazarlıdır. /The article has a single author.

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