

The Rise of Broadcasting



History of Information 103
Geoff Nunberg



April 2, 2009



Itinerary: 4/2

Photography, radio, cinema: the media of remote presence

The development of radio: from point-to-point to broadcast

Competing models of control

The growth of broadcast radio – forms of programming

The advent of television

Broadcast media and public life



puzzlers



Which was the first company to create network broadcasting? What initial advantage did they have?



puzzlers



Who said of radio in 1924, "[It would be] inconceivable that we should allow so great a possibility for service to be drowned in advertiser chatter"?



puzzlers

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Herbert
Hoover



Establishing Remote Presence

Representing presence symbolically or iconically

Writing, print, telegraphy, postal service etc.; also painting, engraving, etc.

Extending presence:

Photography, telephony, cinema, radio, television



Factors Determining the Form of Broadcasting

Technological Developments

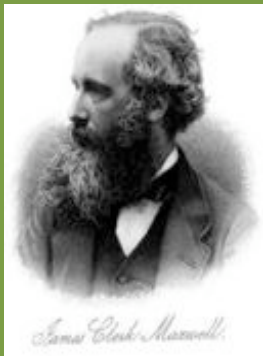
Political & Regulatory Decisions

Commercial Interests

Cultural Predispositions



Technological Development of Radio



Heinrich
Hertz

1861-1865: James Maxwell describes propagation of electromagnetic waves

1886: Heinrich Hertz demonstrates transmission & reception of radio waves at 20 m. distance

"It's of no use whatsoever[...] this is just an experiment that proves Maestro Maxwell was right - we just have these mysterious electromagnetic waves that we cannot see with the naked eye. But they are there."

1895: Nikola Tesla transmits radio waves from NY to West Point (50 mi.)

1895: Guglielmo Marconi transmits radio signals over a mile using coherer, basis of early radiotelegraphy



Technological Development of Radio



Tesla



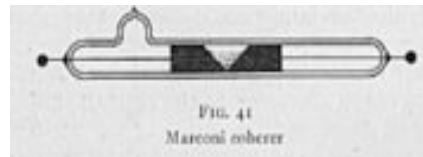
Marconi

1896: Marconi receives British patent for transmission & reception of "Herzian waves" (US patent 1896)

1900: Marconi patents tuning dial

1901: Marconi claims to have transmitted radio signals from Poldhu (Cornwall) to Newfoundland

1900-1910: New technologies make possible continuous wave transmission of voice





Early Point-to-Point Applications of Radio



1905: Japanese use of radio helps in victory over Russian fleet at battle of Tsushima

1912: Titanic uses radio to signal for help, but one nearby ship misses signal; Congress passes Radio Act to allocate band frequencies, require licensed radio operators on ships.

1914-1918 British domination of wireless & cable technology gives it strategic advantages in WWI

1917: Interception of ~~Zimmerman~~ telegram helps bring US into war





Models of Control of Broadcasting

State-owned, politically controlled (many European nations)

State establishes quasi-independent public corporation supported by tax on receivers (e.g. UK)

State licenses frequencies to commercial broadcasters, exerts some control over content; revenues derived from advertising (US)



Models of Broadcasting as Medium

Broadcasting as common carrier (i.e., like phone service) with obligation to provide general access

Broadcasting as extension of press, exempt from control

Broadcasting as entertainment (like movies) subject to censorship



The Emergence of Broadcast

1906: Reginald Fessenden makes first AM transmission, experiments in voice & music broadcast.

1920: Marconi Company sponsors first regular "public" broadcasts in UK, but Post Office bans further use until 1922

Nov. 2, 1920: KDKA Pittsburgh broadcasts results of presidential election; first station to schedule regular broadcasts.

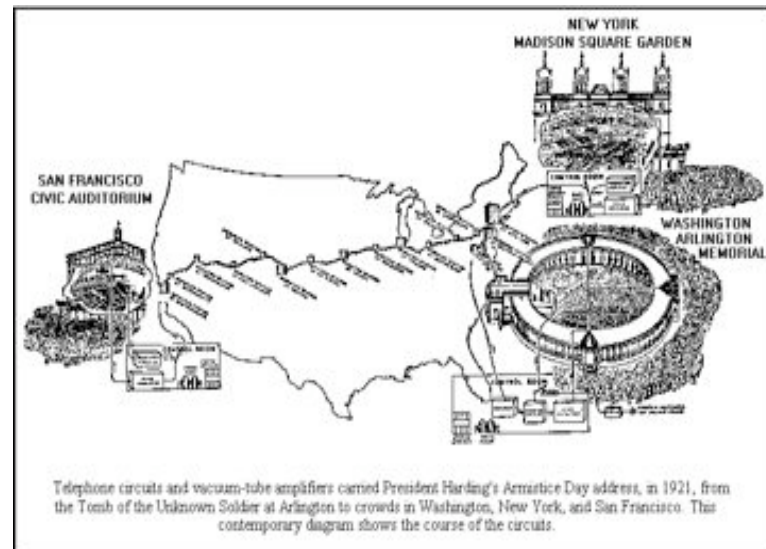
1921: KDKA makes first broadcast of Major League baseball games



The Emergence of Broadcast

1921: AT&T announces plan to create a national broadcasting network

1921: Telephone circuits carry Harding's Armistice Day Address from Arlington Cemetery to NY and San Francisco





"Radio Mania"



1922: BBC begins broadcasting from the roof of Selfridges in London

1926: AT&T sells network to Radio Corporation of America

1920-1925: "Broadcasting boom" leads to rapid increase in number of stations & receivers.

Household penetration is 24% in 1927; 46% in 1930; 65% in 1934

1934: First FM licenses granted, but technology doesn't catch on for 25 years





"Radio Mania"

The cult of "dx-ing":
"Someday, perhaps, I shall take an interest in radio programs. But at my present stage they are merely the tedium between call letters." Radio fan, 1924





Radio Comes of Age



Resolving the Control of Radio

1927: Radio Act establishes Federal Radio Commission

Authorizes FRC to grant broadcasting licenses & assign frequencies. Limits power of FRC to control programming, apart from banning "obscene or indecent" language

Requires stations to give equal time to political candidates.

Opens radio to wide use of advertising; advertisers assume increasing responsibility for creating content
FRC favors "clear channel" allocations (1 station per frequency), which gives most bandwidth to networks & commercial stations, on grounds of "public convenience"



Resolving the Control of Radio

1934: Communications Act replaces FRC with Fed. Communications Commission.

Rejects efforts to establish "hybrid" systems like those in Canada & Australia, which made provision for state-controlled public interest broadcasting alongside of commercial radio



The Development of Programming



Amos n' Andy



Freeman Gosden and Charles Correl

1925-1940 Emergence of radio-specific genres, with process dominated by advertisers: variety, music, drama, serials, quiz shows, etc.

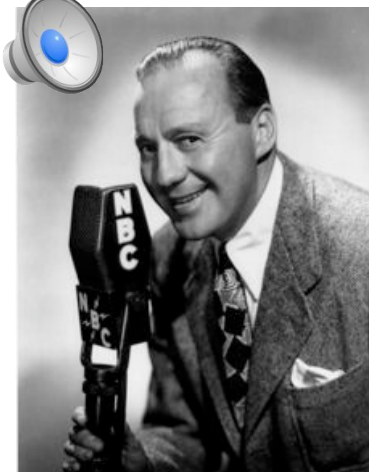
1925: Grand Ole Opry first broadcast on WSM, Nashville

1928: "Amos n' Andy" originates at WMAQ Chicago

1930: WGN Chicago broadcasts "Painted Dreams," first radio soap opera about Irish widow & daughter



The Goldbergs



Jack Benny



Commercial Radio



The Champion Sparkers, 1928



The Ipana Troubadors

"American radio is the product of American business! It is just as much that kind of product as the vacuum cleaner, the washing machine, the automobile, and the airplane. . . . If the legend still persists that a radio station is some kind of art center, a technical museum, or a little piece of Hollywood transplanted strangely to your home town, then the first official act of the second quarter century should be to list it along with the local dairies, laundries, banks, restaurants, and filling stations."

J. Harold Ryan, president of Nat. Assoc. of Broadcasters, 1945, on the first quarter-century of radio

Commercial Radio



Triumph of the jingle



1944- Chiquita Banana, first "hit" radio jingle, sells 1 million records



The Wheaties Quartet --1926



The Development of Programming

Oct. 30, 1938: Orson Welles Mercury Theater radio play of "War of the Worlds" creates some panic among listeners





Radio in Public Life



The Advent of the Commentator

1927: H.V. Kaltenborn, broadcasting news, first heard on CBS

1932: Walter Winchell begins NBC (later ABC) broadcast on "Jergens Journal"





Preachers, Politics & Propaganda



Father Charles Coughlin, the "radio priest"



Billy Sunday



FDR after "fireside chat"

1941: 90% of Americans listen to radio 4 hrs/day



Radio Goes to War

1940: Edward R. Murrow's broadcasts from the London Blitz increase support for US intervention on Allied side





The Arrival of Television



The Invention of Television



1939 General Electric HM-275

(c) TVHistoryTV Library



"The First Invention to be achieved by committee" --Albert Abramson

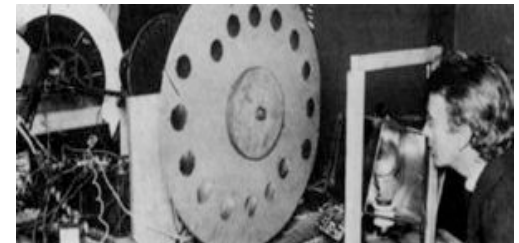
1926 John Logie Baird demonstrates electromechanical television transmission

1934 Philo Farnsworth demonstrates all-electronic television transmission

1936 Experimental TV broadcasting in US, UK, France, Germany

1939: NBC inaugurates US broadcasting at NY World's Fair

1946 Regular network TV broadcasting begins in US





The Advent of Television

In postwar period, television rapidly gains national audiences in US and Europe



1946: "Hourglass," first hour-long variety show, airs on 3 NBC stations; "Faraway Hills" becomes the first TV soap opera

June 19, 1946 Joe Louis-Billy Conn fight viewed by 1m people over 140k sets (many in bars)

1947: First telecast of World Series game (Yankees v Dodgers); Harry Truman addresses US over TV from White House; Debut of "Kraft Television Theater"

1948: 350k TV sets in use, half in NYC area; "Howdy Doody" debuts



The Advent of Television



1949: 2m sets in US

1950: 5.3m sets in US,

1951: 13m sets in US; "I Love Lucy" premieres; Jan 1:

1953: TVs in 50% of American homes; Debut of "Today Show"

1954: Debut of "Gunsmoke," "\$64,000 Question," "Captain Kangaroo"; "The Tonight Show" (w. Steve Allen; switches to talk format w/ Jack Paar in 1957)

1956: Debut of "Playhouse 90"



Further Developments: Color



1929: Color television demonstrated in 1928 by Bell Labs

1953: First color broadcasts using "compatible system" which could also show B&W but by 1960, color accounts for only 2% of TV sales

1965: NBC announces that all new programming would be in color (except for "I Dream of Jeannie.")

1968: Sony introduces single-gun Trinitron color

1972: Sales of color sets exceed B&W

Raytheon
Regency TR-1,
1952



Further Developments

1948: "Community Antenna" television (CATV) systems introduced in rural areas of Oregon & Pennsylvania.

1972: Sterling Cable (NY) launches Home Box Office (later first service to use satellite distribution)

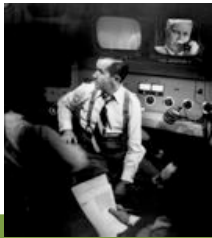
1980: Cable reaches 15m households

1952: Raytheon introduces first transistor radio at \$49.95

1956: Zenith introduces first remote control (connected to TV by cable). First wireless control (Zenith "Space Command") introduced shortly after.



Television as an Information Medium



The TV Documentary

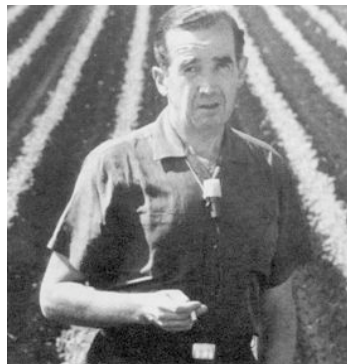


1950: "See It Now" debuts on CBS, w/Edward R. Murrow, edited by Fred Friendly

1952: Murrow presents "Christmas in Korea" from front lines

1956: Murrow's program on Sen. Joseph McCarthy

1960: Murrow and Friendly produce "Harvest of Shame" for CBS Reports



This scene is not taking place in the Congo. It has nothing to do with Johannesburg or Cape Town...This is Florida. These are citizens of the United States, 1960. This is a shape-up for migrant workers.... This is the way the humans who harvest the food for the best-fed people in the world get hired. One farmer looked at this and said, "We used to own our slaves; now we just rent them."



Television Replaces the Newsreels

- 1911: Charles Pathe introduces first weekly newsreel, for RKO theaters
- 1927: Fox Movietone presents first sound newsreel, of Charles Lindbergh's takeoff
- 1931: *Time* founder Henry Luce launches "March of Time" weekly movie magazine, ends in 1951



1924



1934



The rise of TV news

1963 CBS extends evening news to 30 min.

1967 CBS launches "60 Minutes"

1969 Spiro Agnew launches attacks on "effete corps of impudent snobs" in media

1973 Telecast of Watergate Hearings

1980 Ted Turner launches CNN

1991 Desert Storm bombing of Baghdad relayed live by CNN





The "TV-ization" of Spectacle



Effects of televising on sporting events, political rituals, etc.

State of the Union address broadcast since Coolidge 1923, but until the 1970's retains form of address to Congress

Eisenhower, 1955: "It is expected that more than \$12 billion will be expended in 1955 for the development of land, water and other resources; control of floods, and navigation and harbor improvements; construction of roads, schools and municipal water supplies, and disposal of domestic and industrial wastes."



The "TV-ization" of Spectacle



The "Lennie Skutnik" moment, 1982

Just just two weeks ago, in the midst of a terrible tragedy on the Potomac, we saw again the spirit of American heroism at its finest the heroism of dedicated rescue workers saving crash victims from icy waters. And we saw the heroism of one of our young Government employees, Lenny Skutnik, who, when he saw a woman lose her grip on the helicopter line, dived into the water and dragged her to safety.

Ronald Reagan, SOU speech, 1982

1984: Reagan points to Grenada invasion medic; 1999: Clinton points to Sammy Sosa & Rosa Parks; 2005: Bush points to mother of Marine killed in Fallujah, etc.



Cf similar changes in party conventions, debates, campaign speeches, etc.



The Creation of New Political Spectacles

Kennedy-Nixon debate, 9/26/60:
The convention as TV show





"The Medium is the Message"



Television has become, so to speak, the background radiation of the social and intellectual universe, the all-but-imperceptible residue of the electronic big bang of a century past, so familiar and so thoroughly integrated with American culture that we no longer hear its faint hissing in the background or see the flickering grey light. ... Our culture's adjustment to the epistemology of television is by now almost complete; we have so thoroughly accepted its definitions of truth, knowledge and reality that irrelevance seems to us to be filled with import, and incoherence seems eminently sane.

Neil Postman, *Amusing Ourselves to Death*, 1986



Pervasive Media

The flow of images and sounds through the households of the rich world, and the richer parts of the poor world, seems unremarkable today. Only a visitor from an earlier century or an impoverished country could be startled by the fact that life is now played out against a shimmering multitude of images and sounds, emanating from television, videotapes, videodiscs, video games, VCRs, computer screens, digital displays of all sorts, always in flux, chosen partly at will, partly by whim, supplemented by words, numbers, symbols, phrases, fragments, all passing through screens that in a single minute can display more pictures than a prosperous seventeenth-century Dutch household contained over several lifetimes...

Todd Gitlin



Vermeer, "The Concert"



The Experience of Television: "Flow"

[T]he [commercial] "interruptions are... only the most visible characteristic of a process which at some levels has come to define the television experience. ... There is a quality of flow which our received vocabulary of discrete response and description cannot easily acknowledge.

Most of us say, in describing our experience, that we have been "watching television," rather than that we have watched "the news," or "a play," or "the football" "on television."

Raymond Williams, *Television*, 1974



The Transformation of Radio



The Transformation of Radio



1950-1965 Radio retreats to all-news and "Top-40" formats; programming aimed at "drive time" audiences



1967: Public Broadcasting Act establishes Corporation for Public Broadcasting.



1970: NPR established, replacing earlier National Educational Radio Network; begins broadcasting in 1971 with coverage of Senate hearings on Vietnam. "All Things Considered" debuts 1 month later.

Currently supported by station dues, foundation & corporate sponsorship; also CPB grants (2%)

NPR directly produces ATC, Talk of the Nation, etc.

Distributes Fresh Air, On Point, On the Media, Car Talk. which are produced locally.

Other pub. Radio programs not affiliated with NPR: This American Life, Prairie Home Companion, etc. (some distributed by PRI)

Currently 20m weekly listeners; av. Age 50, income ca. 80k. Audience increasing sharply since 9/11.





The Transformation of Radio, 2



1945: On NYC's WMCA, DJ Barry Gray begins conversing with listeners live.

1960: KABC (LA) adopts first all-talk format

Barry Gray

1982: Howard Stern begins broadcasting at WNBC (NYC)

1984: Morton Downey Jr. leaves KFBK (Sacramento) to launch new right-wing TV talk program.

1984: Rush Limbaugh replaces Downey at KFBK.

1987: FCC repeals "Fairness Doctrine," dating from 1949, which required radio stations to present issues in an "equal and balanced" manner. Cites large number of stations variety of media voices.

1988: Limbaugh moves to NYC in 1988. Current weekly cume = 13.5 m, followed by Sean Hannity (12.5), Michael Savage (8.25), Laura Ingraham (5.0), Bill O'Reilly (3.25), others. Highest-ranked liberal talker is Ed Schultz (2.25)





The New World of Political Broadcasting



1996: Fox News launched, pioneers political cable talk-show. Quickly establishes lead in average hourly viewership, though remaining behind CNN in cumulative audience. Barry Gray

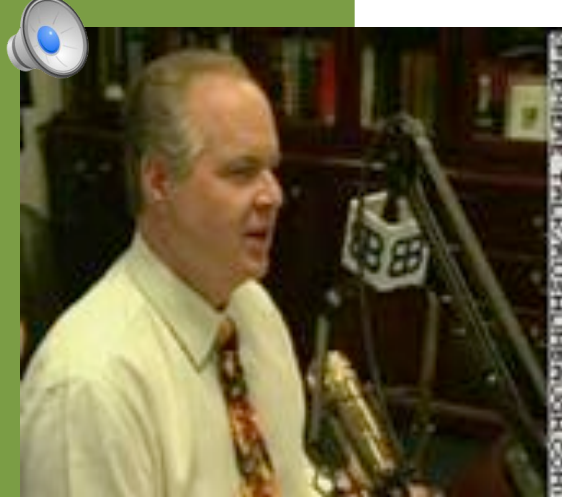
2004: Air America radio begins syndicated broadcasting to provide "liberal voice" in radio;

10/13/06 AA files for bankruptcy protection





Role of broadcast media in modern political language





Next Class: Advertising

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