

# America Between the World Wars

Class 5

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# What We Will Cover Today

- Movies
  - The Hays Office
  - What Hollywood Wrought
- Electricity in the Home
- Radio

# The Hays Office

- 1915 – The Supreme Court ruled that movie making was a business not subject to the protections of the First Amendment
- In the 1920s, the motion picture industry was rocked by sex scandals, sensational divorces, and accusations that sex was for sale in exchange for movie roles
- The 1920s saw conflict between those concerned that movies adversely affected public morals and movie producers/directors who resisted censorship and felt that movies devoid of sex and violence would not sell at the box office

# The Hays Office - 2

- By 1927, the Hays Office developed a list of 11 DON'Ts and 25 BE CAREFULs
- In 1927, the Academy of Motion Picture Arts and Sciences was created with Douglas Fairbanks as first president
  - One of its projects was to bestow “Awards of Merit” to “encourage the improvement and advancement of the arts and sciences” of motion pictures – the Oscars (which were first awarded in 1928}

# What Hollywood Wrought - 1

- Movies had the following effects:
  - Constituted a lifestyle classroom on a whole host of topics – clothes, hairstyles, social attitudes, behavior, and much else
  - Provided a set of shared experiences for almost the whole population
  - Affected people's concepts of historical fact
  - Served as a purveyor of a whole host of consumer goods

# What Hollywood Wrought - 2

- Movies had the following effects – 2
  - Along with the automobile, movies led to the Drive-in movie
  - Initially supplemented and then supplanted lecture hall and vaudeville theater audiences
  - Brought the “Star” system to full fruition
    - Led to fan magazines and fan clubs
  - Played a major role in popularizing the myth of the “Wild West”

# What Hollywood Wrought - 3

- Movies had the following effects – 3
  - Films made cultural production a major economic force
  - Films made commercial entertainment a center of American social life
  - As noted earlier, films constituted a major force in Americanizing world popular culture
    - As a backlash, it also led both intellectuals and traditionalists to react against aspects of American culture deemed incompatible with traditional values

# What Hollywood Wrought - 4

- Movies had the following effects – 4
  - Popularized air conditioning
    - Seeing movies in comfort on hot summer day fueled a desire for air conditioning in the home and office
  - Gave us the animated feature cartoon
    - The marriage of the newspaper comic strip with the movie gave us the animated cartoon feature film



# What Hollywood Wrought - 5

- Movies had the following effects - 5
  - Helped turn the American people against Prohibition
    - The urban jazz-age flapper and her boyfriend conveyed the impression that drinking was widespread and that violating Prohibition laws was socially respectable
  - Diverted artistic talent from other endeavors to the movies
    - People who formerly composed symphonies now wrote movie scores; persons who in the past wrote novels now wrote screenplays

# Movies and the Great Depression - 1

- Movies were a low-priced amusement
  - 25 cents to see a double feature as late as 1940 (\$3.78 in 2009 prices)
  - For the unemployed and underpaid, they were comfortable places to sit
  - In 1940, weekly attendance averaged 80 million

# Movies and the Great Depression - 2

- Effects of the Great Depression on Movies
  - Popularized escapist as distinct from topical films
    - Historical or literary-based films that showed people coping with difficult times and overcoming them
    - Animated films – Walt Disney
  - Led to various innovations as theater owners sought to attract customers
    - Drive-in movies
    - Serials
    - Double Features
    - Popcorn & candy sales
    - Bank Nights and Giveaways

# Electrification of the Home & Workplace

# The Electricity Revolution

- What started the Electricity Revolution was:
  - Invention of the electric motor and generator
  - Adoption of Alternating Current at 60 cycles per second at 120 volts as a standard
    - This took place after the so-called “current wars” over whether AC or DC would be the standard
      - AC won out because
        - » It could be easily stepped up to high voltage for long-distance transmission and then stepped down for use the home or factory while DC could not
        - » Nikola Tesla invented a polyphase induction motor that used AC and was as efficient as DC motors

# The Four Phases

- The electricity revolution had four phases
  1. Electricity replaces steam and water power
  2. City street lighting with electricity replaces gas lighting
  3. Electricity in the home replaces gas and kerosene lighting
  4. The application of electric power to the factory which:
    - Enables the separation of factory and power supply
    - Permits the rationalization of the production process

# Factories Prior to Electricity

- Depended on water power or steam
  - Water power was free but restricted factory location, size, and layout
  - Steam allowed factories to locate away from streams but still restricted factory size and layout
- Both types of power led to:
  - Multistory buildings
  - Power in the form of gears, shafts, pulleys, and belts
  - Factory layout tied to the power requirements of individual machines rather than the logical flow of the production process

# Electricity & the Factory

- Initially, factory owners added electric-powered machines to the already-existing power system
  - It took a while for factory owners to realize that to gain the efficiency benefits of electricity, they had to restructure the whole work process
  - Often it made sense to continue to use the already-existing plants and machinery until they had reached the end of their useful service life
  - Thus, it was not until the 1920s that electricity began to have major impacts on factory productivity and output



# The New Electrified Factory

- The result – a new kind of factory based upon the following:
  - Single-story factory with sky-lighting and windows
  - Single-function machines
  - Machines arranged according to the sequence of work in the manufacturing process
  - The continuously-moving belt or assembly line
- Began to exert its major productivity effects in the 1920s

# Economic Effects - 1

- Proved a boon to small machine shops
  - Electric presses, lathes, and polishers breathed new life into small machine shops, helping them stay competitive
    - Particularly in industries requiring many small batches of goods, such as printing
  - Small workshops and repair shops quickly adopted electric hand tools

## Economic Effects - 2

- Electricity enabled small producers to outcompete larger producers that still used steam or water power
  - This helped newer textile mills in the South outcompete the older New England textile mills that still used steam and water power
    - One result is that the Great Depression came early to Massachusetts and Rhode Island – the states where the New England textile mills were concentrated

# Economic Effects - 3

- The Increased productivity and output:
  - Created a new problem – how to sell all that could be produced
    - Led to large scale advertising and mass merchandising
    - Led to credit innovations, such as installment buying – especially for cars and consumer durables
    - Led to planned ‘psychological’ obsolescence

# Economic Effects -4

- The Increased productivity and output:
  - Allowed for either higher wages, higher profits, or lower prices, or some combination of the three
  - In the 1920s, it led mostly to higher profits with only slightly higher wages and minimally lower prices
    - This led to an increasing maldistribution of wealth – the rich got richer while the income of everyone else stagnated
    - In the 1920s, this led to conspicuous consumption and speculative bubbles in both Florida real estate and the stock market

# Economic Effects - 5

- Replaced gas and kerosene lighting
  - Electric lighting was cleaner, brighter, safer, did not produce soot, and could not be blown out by wind
- Improved the work environment
  - Made for cleaner interior air
  - Fostered better visual acuity by providing better and more appropriate lighting
  - Reduced the danger of fire

# Impact on the Home

- Reconfigured the typical house
- Led, in contrast with the Victorian house, to houses with:
  - More open floor plans
  - Fewer doors
  - Light colors for walls and ceilings
  - Flexible placement of furniture and lamps, and
  - An increasing number of electrical appliances and devices using electricity

# Other Effects

- Allowed sporting and other events to take place 'under the lights'
- Encouraged more reading at home
  - It was much easier to read by electric light than by fire, candlelight, or gaslight
- Dispersed the family within the house
  - The family no longer congregated around the hearth



# Electricity

- Once a home had electricity, a sequence of electricity-using products occurred:
  - Electric lights
  - Small appliances, such as electric irons, fans, toasters, and coffee makers
  - Vacuum cleaners
  - Entertainment media, such as radios & phonographs
  - Major appliances, such as washing machines, dishwashers, and later refrigerators

# Electrical Appliances in the Home

Item	1900	1920	1930	1940
Washing Machine	<1%	8%	24%	60%
Icebox	18%	48%	40%	27%
Refrigerator	<1%	<1%	8%	44%
Vacuum Cleaner	0	9%	30%	40.5%
Electric lights	3%	35%	68%	79%
Telephone		35%	41%	37%
Iron		27% (1922)	60%	67%
Radio	0	<1%	33%	83%

# Radio in the 1920s & 1930s

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# A Note on the Origins of Radio

- James Clerk Maxwell's theory had predicted the existence of electromagnetic waves that traveled through space at the speed of light
- Heinrich Hertz in 1886 devised an experiment to detect such waves.
- Guglielmo Marconi realized that Hertzian or radio waves had a practical use – they could be used to send and receive messages

# A Note on the Origins of Radio - 2

- Reginald Fessenden & Ernst Alexanderson developed a high-frequency alternator that allowed continuous wave transmission
  - This allowed Fessenden on December 24, 1906 to transmit voice and music
- Lee De Forest invented the audion tube which permitted the amplification of radio signals
- Edwin Armstrong invented the superheterodyne circuit

# Effects of World War I

- Sparked a huge demand for both wireless equipment and trained radio operators
  - Trained thousands of radio operators and familiarized them with the latest developments in radio technology
  - Led many of these new radio operators to become postwar amateur radio operators or hams.
  - Inspired Edwin Armstrong in 1918 to invent the superheterodyne circuit as a means of intercepting German radio transmissions
- Laid the groundwork for the 1920s boom in radio and radio broadcasting

# Frank Conrad

- Conrad was an amateur radio operator who was head of Westinghouse's radio operations
  - Regularly broadcast music from his home radio station
  - On September 20, 1920, the Joseph Horne Department Store ran an ad saying that their radios could receive Conrad's transmissions
- The ad triggered an epiphany in Westinghouse VP Harry Davis
  - Radio was a broadcast medium
  - There was money to be made in selling receiving sets

# Radio Broadcasting

- Davis got Conrad to build a radio station at Westinghouse – KDKA – to transmit the 1920 election returns.
- Result – A splurge of radio broadcasting
- One broadcast that helped fuel the radio surge was the broadcast of the Dempsey-Carpentier heavyweight championship fight on July 2, 1921



# Teething Pains

- Initially, all radio stations were supposed to transmit on the same federally-assigned frequency, with a second frequency added in 1922.
  - Thus, radio stations interfered with one another, forcing nearby stations to work out agreements as to when each station would be on the air
  - To get around interference, some radio stations simply shifted their transmissions to a different frequency

# Radio Act of 1927

- Established a 5-person Federal Radio Commission
- Gave the FRC the power to grant and deny licenses, to assign frequencies, and to assign power levels for each licensee
- Required advertisers to identify themselves
- Forbade censorship & indecent language
- Radio Act provisions later incorporated into the Communications Act of 1934 which established the FCC

# Early Radio Programming

- Music – both live performances and phonograph recordings – dominated programming
- Other programming consisted of
  - Election returns, political party conventions, and major sports events
  - Lectures, dramatic readings, and church services

# Early Programming - 1

- Initially limited to the evening hours
- By the late-1920s, broadcasters realized that the right daytime programming might attract housewives
  - This led in the early-1930s to serial romantic dramas, such as “Ma Perkins” and “The Romance of Helen Trent”
    - Termed soap operas because these programs were most often sponsored by laundry soap manufacturers

# Early Programming - 2

- Probably the most popular program of the 1930s was “Amos ‘n’ Andy” which began broadcasting in 1929
  - About 1/3 of the nation’s population tuned in every weeknight at 7:00 PM
  - Focused on two black migrants to the South Side of Chicago who were perpetually confused by city life

# A Note on Sports Broadcasting

- The uncertainties of early radio required radio announcers who could fill airtime with a gift of gab if something went wrong
- Since many radio announcers lacked an athletic background, two or more announcers often teamed up to report a game
  - One described the play-by-play action and the other provided analysis, information on players, and ‘color’.
  - With football, there was three announcers – one for play-by-play description, one for color, and a spotter to identify the large and constantly shifting cast of players on the field.

# Impact of Sports Broadcasting

- Revolutionized radio announcing by promoting a relaxed, colloquial, and emotionally inflected form of announcing
  - This in turn affected radio advertising, announcing for entertainment shows, and radio news in the 1930s and beyond
- Made baseball the ‘national pastime’
  - Baseball is an ideal radio sport
  - Radio turned baseball into a male soap opera

# News Broadcasting

- No regular news coverage
  - Newspapers refused to make wire service reports available to radio stations for broadcasting
- Only in the mid-1930s did the networks begin to broadcast regular and substantial news programs
  - By 1940, network news & commentary shows comprised about 14% of all network evening programs



# Notes About the Radio Medium - 1

- With radio, the speaker addressed an audience that was invisible and unknown
- Radio allowed millions to hear the same program at the same time
  - It provided a speaker with an audience that dwarfed any audience that could fit in an auditorium or theater
  - Along with the phonograph, it gave any song, symphony, or opera more listeners than any theater or symphony hall

# Notes About the Radio Medium - 2

- Radio leads people to create images in their mind to provide a picture background for the actions and dialog that they are hearing in the broadcast
- Radio is a medium that allows people to do other things while they are listening
- Radio fostered the creation of “imagined communities” of people who never met but of which individuals were a part – E.g. sports fans, Fred Allen fans, Amos ‘n’ Andy fans

# Characteristics of Broadcast Radio - 1

- In the 1920s, radio took on many of the characteristics that marked radio and later television during their heydays
  - Bandwidth & wattage allocations that favored well-heeled stations
  - Commercial advertising as the dominant source of radio station revenue
  - Networks that provided programming to individual stations

# Characteristics of Broadcast Radio - 2

- Programming directed toward the tastes and interests of the largest possible audience
- A concern with program ratings
- A resulting alliance of networks and advertisers
- An oligopoly of manufacturers making radios
- A weak, administrative type of Federal regulation
- A widespread diffusion of radios in the American home where they served as centers of family life

# Networks

- The 1920s and early-1930s saw the emergence of four networks – NBC Red (1926), NBC Blue (1928), CBS (1927), & Mutual (1934)
  - In 1943, NBC-Blue was sold off and became ABC
- Networks provided programming to the affiliated local stations
  - Programming was produced by the networks, individual sponsors, and increasingly over time by advertising agencies.
  - Networks gave advertisers access to a large national audience

# Networks & Music

- Both NBC and CBS broadcast classical music
  - CBS began airing the Chicago Civic Orchestra in 1927 and established its own orchestra that year
  - NBC began weekly broadcasts of the New York Metropolitan Opera in 1932 and founded the NBC Symphony Orchestra in 1936 under the baton of Arturo Toscanini

# Notes on Programming - 1

- By the early 1930s, morning programming focused on weather reports, recorded music, and talk a la “Don McNeill’s Breakfast Club”
- By 1930, evening programming focused on the radio genres with mass appeal
  - Domestic sitcoms
  - Crime, mystery, & detective shows
  - Comedy/Variety shows
  - Radio versions of plays and movies

# Notes on Programming - 2

- By the late 1930s, most of the programs that would occupy the top broadcast ratings slots until television (i.e. the next ten years) had made their debut on the air.
- Only in the mid-1930s did radio networks begin to broadcast regular news programs
  - Prior to that, radio lacked the resources and incentive to gather news on its own
  - Rising international tensions made news programs popular
    - What Saddam Hussein did for CNN during the Gulf War, Adolf Hitler did for NBC and CBS News



# Radio Sets

- 1920 – Most radios were homemade crystal sets with earphones
- 1922 – RCA Radiola
  - 6 tubes, amplifiers, and a superheterodyne tuner that required no external antenna and
  - Was simple to operate, but required a battery
- 1928 – Console radio
  - Had a large wooden cabinet with plug-in circuitry and loudspeakers that was sold as furniture
- 1928 – First car radio
- 1930 – Relatively inexpensive table model radios

# Radio Penetration

- Radio quickly penetrated the American market
  - 1927 – 25% of all American households had a radio
  - 1929 - 1/3<sup>rd</sup> owned a radio
  - 1934 - 60% of all homes had a radio;
  - 1940 - 83% of all households owned at least one set. There were also 6.5 million radios in automobiles.

# The Impact of the Great Depression

- Accelerated the expansion and influence of radio
  - Increased the audience for radio vis-à-vis other forms of entertainment
  - Caused vaudeville, the recording industry, nightclubs, and the performing theater to suffer, driving many of their performers into radio broadcasting.

# Radio & Advertising

- Advertisers saw radio as an ideal advertising medium
- Advertisers shaped and stimulated network broadcasting
  - Led networks to programming that reached the largest or most desirable audience
  - Led networks to avoid controversial material that might offend some portion of the audience
- Radio advertising helped popularize cigarette smoking by women – e.g. the Lucky Strike campaign

# Effects of Radio on Entertainment

- Eliminated the sight gag in favor of one-line jokes and the give-and-take between comedian and straight man
- Created the serialized situation comedy and drama
  - Serialized daytime dramas or ‘soap operas’ constituted nearly 60% of all daytime shows by 1940

# Effects of Radio on Entertainment - 2

- Popularized and commercialized previously isolated forms of American music
  - Country & Western
  - Blues
  - Jazz
- Popularized the ‘psychological thriller’ and the detective story

# Effects of Radio - 1

- By broadcasting the same content to a vast audience at the same time, radio created a shared simultaneity and unity of experience
  - This led to both a standardization of culture and also of speech
- It led people to focus on and know about what was happening at the national and international level as distinct from the local community level
  - Thanks to radio and later TV, we now have people who are well-informed about what is going on in Washington or in the Middle East, but who have no idea of who their local mayor or city council representative is

# Effects of Radio - 2

- Along with the movies, led to the rise of a popular entertainment industry geared to the mass market
  - Reduced traditional forms of high art to elite ghettos of the well-to-do and the highly educated
- Radio made music a more integral, structuring part of everyday life and individual identity.
  - Fostered an interest in classical music – especially live performance due to the poor sound quality of early radio
  - Fostered an interest in country/western music and jazz



# Effects of Radio - 3

- The concept of the audience led to the concept of the average American
  - This provoked an interest in ratings, audience demographics, and the tastes and attitudes of the presumed average America
    - What was the average American listening to? Or buying? Who was listening to *Our Miss Brooks* or *The Shadow*?
- Radio adversely affected the advertising revenues of newspapers and magazines

# Effects of Radio - 4

- The technical limitations of early radio:
  - Precluded use of very high or very low frequency musical instruments – cello, oboe, violin
  - Favored use of certain musical instruments - piano, clarinet, and saxophone
  - Led to the use of crooning as a singing technique
  - Favored jazz despite its frequent association with prohibition-era speakeasies and its black roots

# Effects of Radio - 5

- Radio and WWI led to code encryption and code breaking
- Radio paved the way for TV and radar
- Radio made music an acceptable endeavor for men
- Radio led people to match their personal schedules to the schedules of the broadcast day

# Effects of Radio - 6

- Revolutionized advertising
  - Radio enabled the advertiser to reach into the home
  - Radio helped create the celebrity product endorser
    - This promoted an ethic of consumption, by encouraging people to buy the product or service that a psychologically-significant person endorsed
  - Radio enabled sponsors to identify their products with certain lifestyles and demographic groups
    - E.g. the Lucky Strike campaign which popularized smoking by women
    - Sponsors often became identified with the programs they sponsored

# Effects of Radio - 7

- Revolutionized politics
  - Enabled politicians to go over the heads of both the press and the political party, thus weakening their relative power
  - Helped set the national agenda on significant issues and events
  - Created an ‘imagined community’ of like-minded listeners who could be politically mobilized