

# History of Communications Media

Class 5

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# What We Will Cover Today

- The Typewriter
- The Movies
  - Origins
  - The Emergence of Hollywood
  - The Impact of Talking Pictures
  - The Studio System
  - What Hollywood Did to Us
  - What Television Did to Hollywood

# The Typewriter

What Christopher Scholes &  
Remington Wrought

# Definition

- Typewriter = a mechanical or electromechanical device with lots of keys that, when pressed, cause ink to be printed on a medium, usually paper.
- Typewriter = a machine for writing in characters similar to those produced by printer's type by means of keyboard-operated types striking a ribbon to transfer ink or carbon impressions onto the paper

# Typewriter - 1

- Invented by Christopher Sholes
  - Christopher Sholes:
    - Developed a workable typewriter in 1867,
    - Drew in some co-inventors to improve the device
    - Found a manufacturer in small-arms maker Remington
  - 1874 – First Remington typewriter
  - 1876 - Exhibited at the 1876 Centennial Exposition in Philadelphia
  - 1878 - Remington Model 2 typewriter – the manual typewriter as we remember it

# Typewriter - 2

- Initially marketed to authors, lawyers, clergymen, and court reporters
  - Court reporters were the first major adopters of the typewriter
- Businessmen saw its commercial potential to speed up correspondence
  - The typewriter found large-scale popularity in the business office, then spread to government, and finally to individual authors and students

# Effects of the Typewriter - 1

- Created a demand for typists and stenographers
- Created a separation and specialization of clerical jobs
  - Feminized the clerical work force
    - This opened up a new niche for women, but also confined them to a subservient status
    - Impacted upon female fashion
- Led people to start composing documents on the typewriter

# Effects of the Typewriter - 2

- Revolutionized the Office
  - Produced text that was more legible than handwriting
  - With carbon paper, produced multiple copies of the same document
    - Revolutionized office filing
    - Multiplied the quantity of office records
    - Created the typewritten form



# Effects of the Typewriter - 3

- Revolutionized the Office (cont)
  - Changed the furniture of the office
    - The roll top desk with pigeonholes gave way to the modern “Efficiency Desk” (created in 1915 for the Equitable Life Assurance Company) which was a flat-top table containing 4 or 7 shallow drawers underneath
  - Divided correspondence into official (typed) and personal (handwritten)

# Effects of the Typewriter - 4

- Created a demand for carbon paper
  - Allowed the typewriter to create an attractive original and several acceptable copies
- Led to the development of vertical file cabinets to store (and facilitate the retrieval of) documents and case files created by the typewriter and carbon paper

# Effects of the Typewriter - 5

- Led manufacturers of consumer machinery to establish distribution and repair networks
  - As an early piece of machinery often in need of repair, the typewriter created the need for a distribution network to provide instruction, repair, service, and technical assistance functions
- Impacted on how individuals were recruited into, and trained for, the legal profession
  - Reading law in a law office was replaced by law school as a means of educating and recruiting lawyers

# Remington Typewriter



- Click to edit Master text styles
  - Second level
    - Third level
      - Fourth level
        - » Fifth level

# Early Typewriter



- Click to edit Master text styles
  - Second level
    - Third level
      - Fourth level
        - » Fifth level



# Typewriter

- Click to edit Master text styles
  - Second level
    - Third level
      - Fourth level
        - » Fifth level



Movies



# Motion Pictures

- Motion pictures are based on the illusion of continuous motion. This results from:
  - The persistence of vision
  - The Phi phenomena
- Because of persistence of vision, we do not see the dark interface areas of a projection print as it moves through the projector

# Origins of Motion Pictures - 1

- Etienne Jules-Marey
  - French scientist who studied animal and human locomotion
    - His book on animal locomotion, *Animal Mechanism*, inspired Leland Stanford to finance the photography of horses in motion.
- Eadward Muybridge
  - Stanford wanted to find out if a horse ever lifted all legs off the ground while trotting
    - Muybridge set up a series of electrically operated cameras with trip wires to photograph the horse in succession

# Origins of Motion Pictures - 2

- Pierre Janssen in 1873 invented a revolver camera to record the transit of Venus across the sun
- Marett, building on Muybridge and Janssen, built a camera which could take 12 photos in one second
- In 1888, Muybridge, who had corresponded and worked with Marett, met Edison which triggered Edison's interest in motion pictures

# Gelatin Emulsion & Nitrate Film

- George Eastman begins in 1880 to make dry photographic plates with a gelatin-bromide emulsion
- Later, he & W.H. Walker invent a holder for a roll of gelatin emulsion coated paper
- In 1887, Hannibal Goodwin invents a nitrocellulose film base that was the first transparent, flexible film
- In 1888, Emile Reynaud develops the first perforated film stock
- In 1889, Eastman begins putting his gelatin-bromide emulsion onto the clear nitrocellulose film base, eliminating the paper

# Gelatin Emulsion & Roll Film

- Effects of Eastman's Innovations
  - Gelatin emulsions made possible shutter speeds of 1/50th of a second and even faster
    - This made possible action shots without blurring of the subject
  - Roll film made possible the development of motion pictures
    - In 1909, the Edison Trust adopted 35mm film as the motion picture standard format

# Origin of Motion Pictures - 3

- Thomas Edison & W.K.L. Dickson devised their kinetoscope in 1893
  - It cast separate still photos on a screen one after the other so rapidly that the pictures seemed to be moving
  - Used the celluloid roll film produced by George Eastman in an endless loop
  - It was designed for its film to be viewed individually through the window of a cabinet housing its components

# Origin of Motion Pictures - 4

- 1895 -Thomas Armat and Charles Francis Jenkins invented the first film projector – the Vitascope
  - The Film Projector allowed motion picture film to be shown in a dark room to moderately large audience
    - This became the standard method by which people viewed motion pictures
  - The kinetoscope with its individual viewing survived not in theaters but in establishments that catered to persons interested in porn

# Movies – Two Concepts - 1

- Motion Pictures as a documentary medium
  - Edison and the Lumiere brothers adopted this approach
  - They filmed actual scenes or events, recording noteworthy persons, scenes, and events
    - Early documentaries consisted of a 15- to 20-minute potpourri of unconnected scenes



# Movies – Two Concepts - 2

- Motion Pictures as a narrative or storytelling medium
  - George Méliès, Edwin S. Porter, and D.W. Griffith adopted this approach
  - George Méliès was the first to see that editing could manipulate time and space to make the MOPIC film a narrative or storytelling medium
    - Méliès originated the fade-in, fade-out, dissolve, and stop-motion shot, multiple exposure, and time-lapse shots
    - His most famous film was *A Trip to the Moon*

# Movies as a Storytelling Medium

- Subsequent Innovations
  - Edwin S. Porter in *The Great Train Robbery* combined stock footage with newly-filmed staged scenes and the use of intercuts depicting parallel actions to create a narrative fictional story from recordings of real events
  - D.W. Griffith in *Birth of a Nation* pioneered the full-length feature film and was the first to make use of the close-up, cutaways, parallel action shots, and the re-creation of historical events

# *Birth of a Nation*

- *Birth of a Nation* did the following:
  - Created the historical epic as a film genre
  - Established the motion picture as an artistic medium and inspired subsequent directors and filmmakers
  - Distorted history by providing a militantly white-supremacist perspective on the Civil War, Reconstruction, and African-Americans
    - Filled with factual distortions and racist stereotypes
    - Led to the origin and growth of the Ku Klux Klan

# Emergence of Hollywood - 1

- Prior to WWI, France and Italy regularly surpassed the U.S. in film exports
- WWI shut down the European film industry as celluloid film production was diverted to the production of explosives
- Hollywood emerged as the center of U.S. film production for two reasons
  - Sunny California climate
  - Lower wage rates in non-unionized LA
  - Desire of independent film producers to get away from the Motion Picture Patents Company

# Emergence of Hollywood - 2

- Motion Picture Patents Company (“Edison Trust”)
  - Formed to resolve litigation over patents
    - Charged exhibitors a uniform price per foot of film shown
    - Limited its members to one- and two-reelers
    - Made Eastman Kodak the sole source of raw film with Kodak selling only to licensed members
  - Aim was to control competition and shift profits from the distributors and exhibitors back to the producers and patent holders

# Emergence of Hollywood - 3

- Precipitated a battle with independent producers and theater exhibitors
  - Led to a lot of litigation with many independents relocating to the West Coast
  - The Independents imported films from foreign producers excluded by the trust, obtained raw film stock from abroad, and made their own pictures.
    - By 1910, they made two-thirds as many reels of film as the trust's licensed companies and served 30% of the nation's 10,000 motion picture theaters.

# Emergence of Hollywood - 4

- Edison Trust failed for two basic reasons:
  - It lost an anti-trust suit
  - It made some erroneous decisions and assumptions
    - Setting a uniform price per foot of film eliminated any incentive to invest in elaborate and costly productions
    - Limiting films to one- or two-reelers prevented trust producers from making “feature films” that appealed to upscale audiences
    - Trust members refused to publicize their stars
      - This led many stars and directors to jump to the Independents

# Emergence of Hollywood - 5

- The Feature Film revolutionized the movie industry
  - Allowed motion pictures to appeal to the middle class
    - Format was similar to that of the legitimate theater
    - Format allowed for adaptation of middle-class appealing novels and plays
  - Inspired exhibitors to replace storefronts with new movie palaces
  - Led producers to create and publicize stars in order to promote their films



# Emergence of Hollywood - 6

- The Feature Film also:
  - Led producers to create and publicize stars in order to promote their films
- Result:
  - By the late 1910s, feature-length films had become a popular form of entertainment
    - In many cities, weekly movie attendance exceeded the population of the city

# Emergence of Hollywood - 7

- Results – The independent opponents of the Trust (and Hollywood) won out
  - The independents went on to found the major Hollywood studios:
    - William Fox (20th Century Fox)
    - Carl Laemmle (Universal Pictures)
    - Adolph Zukor (Paramount)
  - Only one of the Edison Trust companies lasted beyond 1920
    - Vitagraph – died in 1925

# Emergence of Hollywood - 8

- Reasons –
  - The Motion Picture Patents group were people who either invented, modified, or bankrolled movie hardware – cameras, projectors, etc
  - The independents were people who either ran theaters or came from fashion-conscious industries
    - They had much better awareness of what the public wanted – Feature Films & Motion Picture Palaces

# Emergence of Hollywood - 8

- Movie Theaters

- In 1923, there were 15,000 silent movie theaters in the U.S. with an average seating capacity of 507 and a weekly attendance of 50 million

- About 1,000 of these were “motion picture palaces”
      - Large, elegantly-decorated places which seated 1,500 or more people
      - Often they were the first buildings to have air conditioning
      - Often had expansive lobbies, thick carpeting, paintings, and statues
      - Many had large Wurlitzer organs for musical accompaniment

# Why Hollywood Won Out - 1

- Why Movie Makers Went to Hollywood
  - Large demand for films required that film production be put on a year-round schedule
  - Slow film speeds required that most shooting take place outdoors in available light
  - Hollywood had an average 320 days of sun a year, a temperate climate, and a wide range of topography within a 60-mile radius
  - It was far removed from MPPC headquarters in New York City

# Why Hollywood Won Out - 2

- Why Hollywood Became the Center of World Feature Film Production
  - Large domestic audience and consequently larger profits to finance productions with lavish sets and expensive stars
  - Development of the Star system
  - Studio control over distribution networks
  - Heterogeneity of the American population
  - Dependency of American films on commercial success

# Movies – A Note About European Film

- Before WWI, France and Italy dominated European film production and had made major innovations in film
  - The storytelling film (Méliès)
  - The chase film, which inspired Mack Sennett's keystone comedies (Ferdinand Zecca)
  - The serial (Louis Feuillade)
  - The historical spectacular with a cast of thousands (Louis Maggi)

# Why Hollywood Won Out - 3

- World War I
  - Shut down European film production
    - By the end of the war, the U.S. dominated the international film market
    - In 1919, 90% of all films screened in Europe were American (except in Germany)
  - Stimulated Allied demand for American films
    - In some cases, Allied governments financed the making of anti-German films, such as D.W. Griffith's *Hearts of the World* (1918)



# Movies – The Result

- Effects of WWI and the emergence of Hollywood
  - By the mid-1920s, approximately 95% of the films shown in Great Britain, 85% in the Netherlands, 70% in France, 65% in Italy, and 60% in Germany were American films
  - The beginning of the “Americanization” of first European and then World popular culture

# Talking Pictures - 1

- The idea of uniting motion pictures and sound actually began with Edison
  - Edison's associate, Dickson, synchronized Edison's kinetoscope with his phonograph & marketed the device as the Kinetophone
  - By the 1910s, producers regularly commissioned orchestral scores to accompany prestigious productions

# Talking Pictures - 2

- Lee De Forest in 1919 invented an optical sound-on-film system which he tried unsuccessfully to market to Hollywood
- Western Electric in 1925 invented a sound-on-disc system but was likewise rebuffed by Hollywood except for Warner Bros
  - Warner Bros bought the system and the rights to sublease it
  - Initially Warner Bros used it to produce films with musical accompaniment, starting with *Don Juan* in 1926

# Talking Pictures - 3

- In 1927, Warner Bros released *The Jazz Singer* which included dialog as well as music. Its phenomenal success ensured the film industry's conversion to sound.
  - Rather than use Warner Bros sound system, however, the other studios decided to use a sound-on-film system
    - This enabled images and film to be recorded simultaneously on the same film medium, insuring automatic synchronization
    - Competition between Western Electric's Movietone and General Electric's Photophone competing sound-on-film systems led RCA to form RKO Pictures

# Talking Pictures - 4

- Talking Pictures' interesting consequences - 1
  - Increased Hollywood's share of world cinematic revenue
  - Led to the demise of many "Silent Era" film stars
  - Made Bank of America a major financial institution since they, unlike other banks, were willing to finance Hollywood productions
  - Led to the creation of distinct genres to facilitate marketing

# Talking Pictures - 5

- Talking Pictures' interesting consequences – 2
  - Led most theaters to drop the interspersing of vaudeville acts and live music with motion pictures
    - Resulted in the fading of vaudeville
  - Led to the dominance of the studio system
    - Studios that seized the opportunity to make talkies – Warner Bros, Fox, M-G-M, & Paramount - soon gained dominance
  - Altered the behavior of moviegoers
    - The talking audience for silent pictures became the silent audience for talking pictures

# Talking Pictures - 6

- Talking Pictures' interesting consequences – 3
  - Sound gave filmmakers new ways to attract and excite audiences
    - Allowed films to become more fast paced and complex
    - Boosted ticket sales
      - In 1930, weekly movie attendance equaled 75% of the total American population
    - Boosted the popularity of war movies, horror movies, westerns, and films that depended on clever, fast-paced, and witty dialog

# Movies – The Studios - 1

- The studio system originated in France with Charles Pathé
  - Involved actors under exclusive contract
  - Vertical integration – screenwriting, production, promotion, distribution & exhibition under one roof
  - Use of the profits of one film to fund the production of another



# Movies – The Studios - 2

- The American Studio System reflected the ideas of Charles Pathé and Thomas Harper Ince.
  - Ince at his studio in Inceville CA:
    - Functioned as the central authority over multiple production units, each headed by a director
    - Had each director shoot an assigned film according to a detailed continuity script, a detailed budget, and a tight schedule
    - Supervised the final cut

# Movies – The Studios - 3

- Emergence of the Hollywood Studios reflected:
  - The successes of Pathe and Ince and the adoption of their approach by American moviemakers
  - Oligopolistic success in a highly competitive industry
  - The need to finance ever increasing production costs and the conversion of theaters to sound
    - Required an ability to obtain bank loans and Wall Street investment bank financing

# Movies – The Studios - 4

- By the mid-1930s, Hollywood was dominated by 8 studios – the Big 5 and the Little 3
  - Big 5 – Paramount, 20th Century Fox, Warner Bros, RKO, and M-G-M
  - Little 3 – Universal, Columbia, and United Artists
  - A few independents – Republic & Monogram
- This system dominated Hollywood until the early-1950s

# Movies – The Studios - 5

- Decline of the Studios
  - *U.S. vs. Paramount Pictures, Inc. et al* (1948)
    - Led to divestiture of the studios' theaters
    - Led to the firing of stars, directors, writers, and other personnel
      - Many stars and directors set up their own independent production companies
      - Unlike the studios, independents saw television as a potential bonanza
  - The decline in movie attendance
    - Postwar baby boom
    - The impact of television
  - European promotion of their own studios

# Movies – Some Notes - 1

- Movies initially appealed to a lower class (immigrants & working class) audience
  - Explains why we eat popcorn at the movies but not at plays or the opera
- Movies began to appeal to a middle class and upper class audience when:
  - Producers began to make and show feature films
  - “Motion Picture Palaces” began to replace storefront exhibition places

# Movies – Some Notes - 2

- By the early 1920s, the movies had established the basic film genres that are still with us:
  - Crime story
  - Western
  - Historical costume drama
  - Domestic melodrama or romance
  - Comedy (often romantic)

# Movies vs Plays

- Movies and plays were both narrative and storytelling media but they differed in that:
  - Plays are always live performances; movies are not
  - Movies and plays treat time differently
  - Plays can have very sparse scenery; Movies require elaborate sets
  - Movies permit close-ups while plays, for most members of the audience, do not

# 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
    - Fostered discontent in the Third World



# What Hollywood Wrought - 2

- Movies had the following effects – 2
  - Along with the automobile, 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

- Effects of the Great Depression on Movies
  - Popularized escapist as distinct from topical films
    - Historical or literary-based films
    - Animated films – Walt Disney
  - Led to various innovations as theater owners sought to attract customers
    - Drive-in movies
    - Serials
    - Double Features
    - Bank Nights and Giveaways

# Movies and Television

- What Television Did to the Movies
  - While the Studios initially saw television as a mortal threat, independent movie producers saw TV as an opportunity
    - The independents began making films – mostly crime dramas, westerns, and comedies – for television
      - Among the most successful was Desilu Productions
    - The success of Disneyland with the theme park, TV programs, and movies mutually promoting each other led studios to see television as a potential ally

# Movies and Television

- What Television Did to the Movies - 2
  - Movie studios began renting their archives of old productions to the networks
    - Feature films on television
    - Studios invest the archiving, preservation, and restoration of old feature films
    - Films made for television without exhibiting them in theaters beforehand

# Movies and Television

- What Television Did to the Movies - 3
  - Television changed the economics of the movie business
    - Before television, box office revenues were the source of movie profits
    - After television, it is primarily video (initially VCR tape and now DVD) rentals and sales that are the source of profit, followed by box office revenue and sales of exhibition rights to free and pay television. In some cases, there is additional revenue from product tie-ins.



# Movies and the VCR

- Initially, the movie studios saw the VCR as a threat
  - Universal and Disney sued Sony, claiming Sony contributed to copyright infringement
    - Case went to the Supreme Court which decided in favor of Sony in 1984
- Eventually, the studios found that selling pre-recorded videotapes to the public was profitable
  - In 1993, 49% of movie revenues came from videotape sales.

# What the VCR Did to Movies - 1

- Changed the movie viewing experience
  - Seeing a movie on a VCR/TV was far different from seeing it in a theater
    - Large-screen vs Small-screen
    - Different aspect ratio and field-of-view
    - Dark theater vs Lighted room
    - Sharp high resolution vs Blurry low resolution
    - Public setting vs Privacy of the home

# What the VCR Did to Movies - 2

- Changed people's TV-viewing habits
  - Time-shifting ended viewers' subjection to broadcasters' time schedules
- Turned people into videotape collectors as home VCR-recorded and purchased prerecorded tapes accumulated
- Enabled the homebound (i.e. the elderly, handicapped, and the parents of small children) to watch feature films

# What the VCR Did to Movies - 3

- Turned the movie theater audience into a scattered collection of individual viewers
  - People now saw movies as families or individuals rather than as members of an audience
- Drove out of business
  - Movie revival houses and high-brow art theaters
  - 16mm projector and film rental agencies that used to service schools, hospitals, and training sites
  - Nickelodeon pornographic movie establishments
  - Drive-in movies