History of Communications Media

Class 3

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What We Will Cover Today

- Finish our discussion of printing
- Briefly discuss the impact of print pornography
- Discuss news, newspapers, and 19th century printing innovations
- Discuss the telegraph and its impact

Printing & Nationalism - 1

- Printing created a unified official vernacular out of numerous local dialects
  - E.g. the King's English, Parisian French, Tuscan Italian, Castilian Spanish, & High German
- Printing gave a new fixity to language, building an image of antiquity so central to the subjective idea of a nation
- Printing helped create the bourgeoisie as both an 'imagined community' and as a class

Printing & Nationalism - 2

- Printing fostered the idea of being part of large-scale collective groups

- Printing, as noted earlier, elevated the status of the vernacular language, thus fostering a sense of ethnic-linguistic nationalism

- Printing created walls between different language groups while homogenizing differences within

- Print media proved very useful in arousing nationalist feelings and hatreds

Printing and Intellectual Liberalism

- Printers disliked censorship
  - They were natural libertarians who generally wanted the freedom to print whatever they wanted and whatever they thought would sell
- Printers had to deal with scholars and intellectuals
  - This in itself contributed to liberal attitudes since intellectual pursuits brought together people from very diverse backgrounds and from different religions

Printing & Childhood - 1

- Printing created childhood as a distinct social category
  - Before the printing press, children became adults by learning to speak
  - In the centuries after the invention of printing, Adulthood was redefined – one became an adult by learning how to read

Printing and Childhood – 2

- Before print, children were seen as little adults and seen as part of the adult world
- After printing, children had to earn adulthood by becoming literate, for which people are not hardwired
  - This meant children had to go to school
  - With the establishment of schools, children came to be viewed as a special class of people different from adults
- People began to see human development as a series of stages, with childhood being a bridge between infancy and adulthood

New Literary Genres

- As noted before, printing led to new formats and genres of literature:
  - Early genres included the book, broadside, pamphlet, leaflet, poster, and placard
  - The mid-17th century saw the newspaper
  - The late-17th –early-18th centuries saw the scholarly journal
  - The 19th century saw the daily newspaper and the magazine

Pornography - 1

- "Great art is always flanked by its dark sisters, blasphemy and pornography." Camille Paglia
- It didn't take some authors and printers too long to find out that sex sells
  - Pietro Aretino *Postures* (1524)
  - Francois Rebelais *Gargantua and Pantagruel* (1530-1540)

Pornography - 2

- Prior to the 19th century, pornography was a vehicle to attack the political and religious authorities through the shock of sex
  - "Pornography has the power to delegitimize, by stripping the high ones of respect and exposing them to contempt. Pornography, customarily regarded as apolitical, has therefore enormous revolutionary potential." *Conor Cruise O'Brien*

Pornography - 3

- Pornography played a major role in the French Revolution
  - *Les Libelles* – pornographic pamphlets graphically described the alleged sex-lives of the French royal family and aristocracy
    - This did much to shape the attitudes of the Paris mobs toward the royal family
    - Thus, politically-motivated pornography helped bring about the Revolution by undermining the legitimacy of the ancien regime.

Pornography - 4

- In the 19th and 20th centuries, Pornography has been used to attack and discredit other groups
  - Anti-Catholics wrote numerous pornographic works describing the alleged sexual misdeeds of priests and nuns
  - Abolitionists wrote extensively about slave masters allegedly raping their slaves
  - Russian revolutionaries wrote extensively about the alleged sexual misdeeds of Rasputin and the Czarina

Pornography - 5

- In later 19th century America, Pornography largely took on an apolitical nature and began to focus more and more on the erotic and sexually explicit
  - It thus came to be seen as a separate, if disreputable, genre
  - If it was banned, it was banned for its alleged effects on morals, not for its libelous statements and political-religious radicalism

News and Newspapers - 1

- Definition of News
  - New information about a subject of some public interest that is shared with some portion of the public.
  - Thus news can be distinguished from:
    - History – since it lacks the requisite newness
    - Art – since it does not offer compelling information
    - Intelligence – which is reserved for governmental or private use and is usually close hold
    - Chit-chat & gossip – which is normally only of personal, family, or small group interest

News and Newspapers - 2

- Some Notes About News
  - Not all events are news
    - Events must be selected to be news and they are selected because
      - They are considered to be of interest
      - They are within the news gatherers' perceptual reach
      - They are seen as out of the ordinary
  - News imparts to occurrences a public character
    - It transforms mere happenings into publicly discussible events

News and Newspapers - 3

- Some Notes About News – 2
  - News is usually a report about an event, but
    - Word on the President's position on a major political issue of controversy would be news
  - News is usually about recent occurrences, but
    - Fresh information on whether President Zachary Taylor was or was not deliberately poisoned would be news
  - News is usually deliberately gathered for purposes of dissemination, but
    - Some news is obtained merely by stumbling upon it

News and Newspapers - 4

- Some Notes About Newspapers
  - Until the 19th century, almost all newspapers were weeklies whose content consisted largely of advertisements and news from outside the community. This was so for two reasons
    - Until the 19th century, printing remained a handicraft process
    - In small communities, local news could travel via the grapevine far quicker than by newspaper. Thus newspapers focused on news originating elsewhere

News and Newspapers - 5

- Some Notes About Newspapers
  - Despite their limitations, newspapers often had a major influence
    - The printers and publishers of newspapers were often well-educated individuals who were leaders and opinion makers in their community
    - Newspapers thrive on controversy, provided they are able to take part in public discussions with some degree of freedom
    - Prior to the 20th century, newspapers had a monopoly on the dissemination of news (except for word of mouth or letters read aloud)

19th Century Newspaper Innovations

- In the 19th century, the newspaper would be revolutionized by
  - Faster presses & printing processes
    - The Koenig Steam-powered Press
    - Stereotyping
    - The Rotary Press
    - The Linotype
    - Photoengraving and color lithography
  - New News-gathering techniques
    - Reporters
    - The telegraph and then the telephone
    - Investigative Journalism
  - New dissemination technologies and innovations
    - The railroad and the post office
    - Cheap paper made of wood pulp
    - The Penny Press

19th Century Newspaper Innovations - 1

- Use of steam power in printing
  - 1810 – Friedrich Koenig uses steam power to run a press
  - 1814 – *London Times* installs Koenig's press
    - Can print 1,100 sheets an hour (4X that of hand presses)
    - Bu 1850, further improvements raise the rate to over 4,000 sheets an hour
    - **London Times** circulation rose from 5,000 in 1815 to 50,000 in the 1850s

Koenig Steam Press
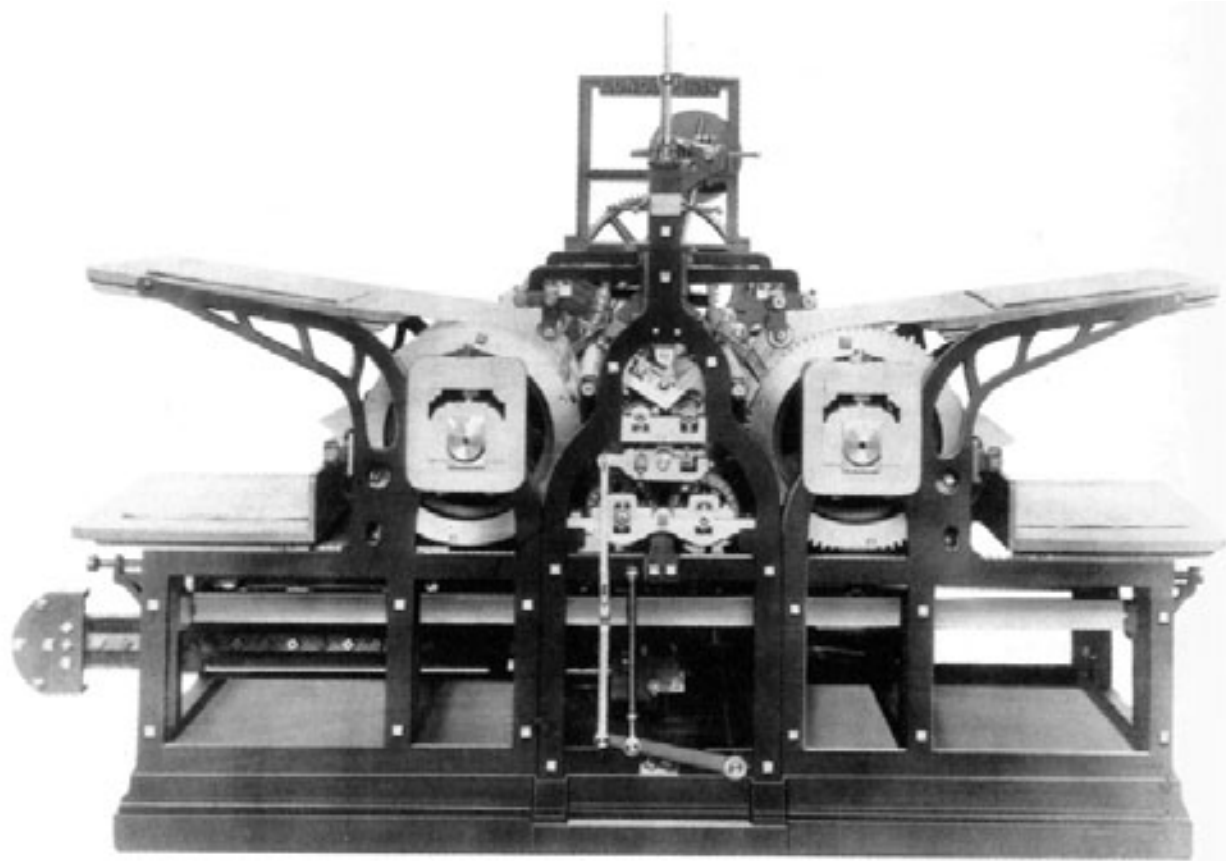
19th Century Newspaper Innovations - 2

- Stereotyping – 1811
  - Before stereotyping, a printer wishing to reprint something needed either to keep the original type in place or to reset it
  - With stereotyping, the set type was used to make a lead mold from which metal plates were cast
    - This freed up the type for other uses
    - It also facilitated multiple press runs

Stereotype Plate & Print

19th Century Newspaper Innovations - 3

- Rotary press invented by Richard Hoe - 1846
  - Rotary press consisted of a cylinder with type fixed to its surface, which rolled against another cylinder as paper passed between the two.
    - By 1860, the *Daily Telegraph* in London, which used a rotary press, was rolling out 130,000 copies a day.
  - This was followed by:
    - Four cylinder presses capable of printing on both sides of a paper simultaneously
    - Automated printing on continuous rolls of paper

Rotary Press
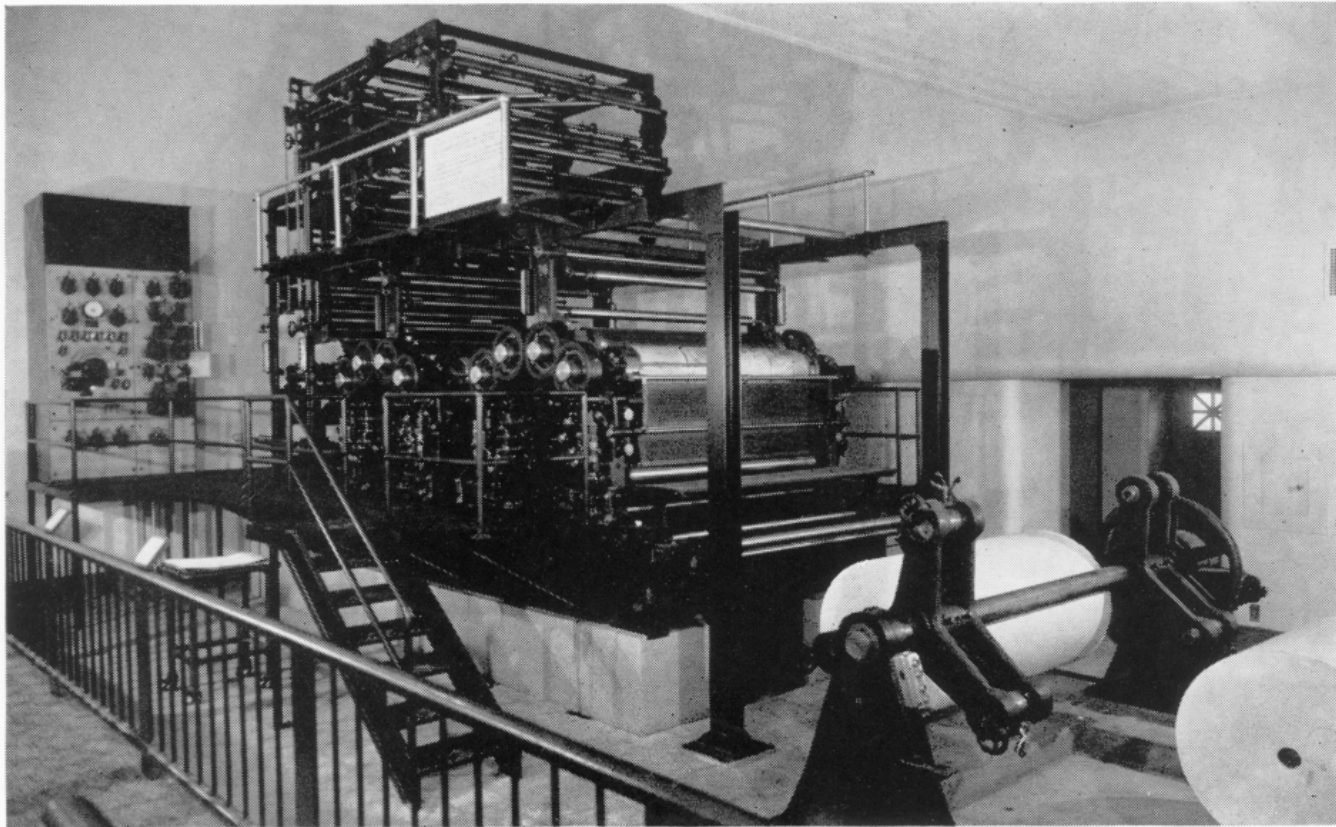
19th Century Newspaper Innovations - 4

- Reporters
  - Early newspapers did not have reporters
    - Local News was acquired by conversations at the print shop or local tavern
    - National and Foreign News acquired from letters to the newspaper and from other newspapers
  - Reporting -- going into the field in search of news -- was a consequence of:
    - Newspaper competition
    - Faster and better means of communication (which encouraged the use of out-of-town and overseas correspondents)
    - Growth of cities (which created an appetite for local news that word-of-mouth could not meet).

19th Century Newspaper Innovations - 5

- Telegraph
  - Revolutionized the newspaper business
    - Made feasible the use of out-of-town and foreign correspondents
    - Led to the creation of news wire services, such as the Associated Press and Reuters
    - Gave rise to our present concept of news and our present methods of newsgathering
    - Had other impacts on the newspaper which I will talk about when I discuss the Telegraph and its impacts

19th Century Newspaper Innovations

- ## Investigative Journalism
  - – Pioneered by the *New York Tribune* and the *New York Times*
    - *Tribune's* investigation of the 1836 murder of Ellen Jewett
    - *Times'* expose of the Tweed Ring in 1870

19ᵗʰ Century Newspaper Innovations

- Popularization of Wood Pulp Paper
  - As noted in the first class, paper meant rag paper until the middle decades of the 19ᵗʰ century
  - In the 1830s came hemp paper and straw paper
    - Hemp had a high cellulose content with strong fibers, but it was costly and could not be bleached – used for manila folders
    - Straw was cheap, but it had short fibers that were neither strong nor durable
      - Mixed with rags, it was widely used for newsprint and dime novels by mid-century

19th Century Newspaper Innovations

- Wood Pulp Paper
  - Production began in Germany In 1847
    - German immigrants brought the technology and production techniques to the U.S.
  - U.S. began wood pulp paper production in 1867
  - Wood Pulp Paper was less durable and weaker than paper made from straw, but was also cheaper
    - When it became available, newsprint prices dropped from 25 cents per lb in the 1860s to 2 cents per lb in 1897
  - U.S. newspapers begin using wood pulp paper in the late-1870s—early-1880s

19th Century Newspaper Innovations

- Wood Pulp Paper - 2
  - Facilitated the penny press and the dime novel by drastically lowering the cost of paper
  - Created a record storage medium that was highly prone to acidification and degradation
    - Thus many 19th and 20th century newspapers, books, and documents have become unreadable and have either been lost or have had to be deacidified and laminated at great expense

19th Century Newspaper Innovations

- Penny Press
  - Became possible when newsprint became cheap
    - Began with the rag-straw paper but was facilitated by the adoption of wood pulp paper
  - Depended on advertising revenues and newspaper sales rather than upon subsidies and printing contracts from political parties
    - This led to "sensationalism", a focus on local news and especially crime news and human interest stories , and less of a focus on political and business news

19ᵗʰ Century Newspaper Innovations

- ## Linotype
  - The machine revolutionized printing and especially newspaper publishing, making it possible for a small number of operators to set type for many pages on a daily basis.
  - Resulted in an 85% reduction in the time it took for setting type
- ## Color Lithography & News Photography
  - Will talk about these when I discuss Photography

Linotype
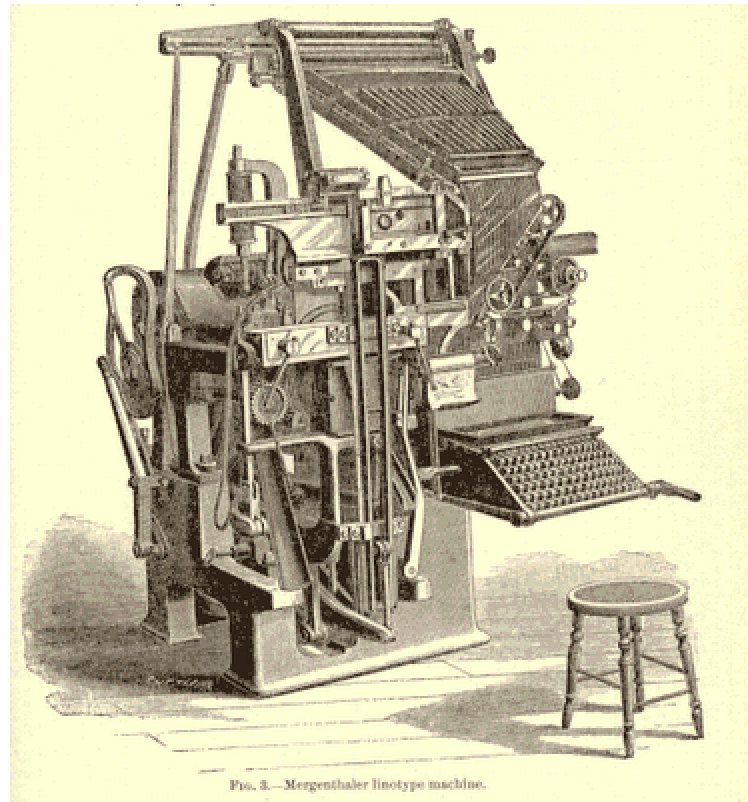
Fig. 3.—Mergenthaler linotype machine.

Telegraph

Telegraph

- Theoretically, Telegraphy became possible when Stephen Gray in 1729 discovered that electric current could be sent along a wire and activate some sort of device at the other end
  - Variation in the number or duration of the impulses could signal different letters or numbers. These could be strung together to form a message
- Practically, creating a telegraph system was possible only when reasonably reliable and economical batteries became available

Telegraph

- What Samuel F.B. Morse and Theodore Vail accomplished was:
  - A telegraphic system that used Morse Code
  - A telegraphic receiver that could both mark the dots and dashes onto a moving strip of paper and emit sounds that an experienced telegrapher could decipher at speeds up to 40-50 words a minute

Telegraph

- Some Notes About the Telegraph
  - Before the telegraph, the speed of information was tied to the speed of transportation. The telegraph broke that link and made possible the almost instantaneous communication of information
    - This revolutionized information-intensive industries and activities
      - News could now be reported as it occurred and instantly disseminated across a fairly wide region
      - Facilitated the operation and coordination of the railroads
      - Business transactions between merchants in different cities that formerly took days or weeks now took only minutes or hours

Telegraph

- Some Notes About the Telegraph – 2
  - It created a lot of technological hype and technological utopianism
    - The notion that new technology equals progress and that technological innovation can solve our socio-economic-political problems largely gets its start with the telegraph and the railroad.
  - It made possible the future creation of large-scale corporate entities

Effects Upon Newspapers & Newsgathering

- News Wire Services
  - The combined desire for speed and the increasing costs involved in using the telegraph to get news led New York City newspapers in 1848 to create the first news wire service, the Associated Press
- Out-of-Town & Foreign Correspondents and Reporters
  - The telegraph made it possible for such correspondents to report distant news
- 'Inverted Pyramid" Style of News Writing
  - A result of the unreliability of early telegraph lines (especially in wartime)
  - The concern with essential facts led to a differentiation between news and opinion – with the latter being segregated into an editorial section or caged in quotation marks

Nationalizing of Markets

- To economists, it is axiomatic that markets are limited to the area in which communications is effectively instant
  - Thus, before telegraphy, markets were inherently local. After telegraphy, they became regional and then national.
    - One effect was to concentrate the trading of items such as gold, stock, bonds, and commodities in the place where most of their related financial transactions took place:
      - New York became a center of stock and bond trading
      - Chicago became a center of commodities trading

Some Other Consequences

- Created the first network-effect technology – the value and use of telegraphy increased as more nodes were added to the system
  - This provided a pattern for subsequent network-effect technologies
- Made Western Union a major corporate entity
- Facilitated the use of acronyms and abbreviations in messages (and writing)

Orville Wright Telegram

Some Other Consequences - 2

- Paved the way for such future wire-related information technologies as the:
  - Telephone,
  - Teletype machine,
  - Stock ticker,
  - Remote fire and burglary alarm
  - Fax machine

Some Other Consequences – 3

- Along with the railroad, the Telegraph:
  - Facilitated travel and the holding of professional and business conventions
    - Telegraph allowed people to make hotel reservations
    - Allowed convention planners to coordinate convention planning with the hotels where the convention was to take place
  - Made modern sports and touring theatrical companies and their related stars possible by:
    - Permitting long-distance transportation of teams, troupes, and fans (and the necessarily-related coordination) and
    - Allowing the electrical transmission of sports news and theatrical publicity to city newspapers and mass-distribution magazines

Historical Notes -1

- 1851 – Fire alarm telegraph
- 1858 – Wheatstone Automatic Telegraph Sender that could transmit up to 400 words a minute from pre-punched tape
  - Used for news transmission
- 1871 – Western Union begins money transfers
- 1871 – Signal telegraph
  - Allowed a customer to signal a central police station, firehouse, or messenger service
- 1872 – Duplex Telegraph
- 1884 – Quadraplex Telegraph

Historical Notes - 2

- 1884 – Western Union is one of the original 11 stocks included in the first Dow Jones Average
- 1900 – Fredrick Creed invents a way to convert Morse Code to text
- 1913 – Western Union develops Multiplexing
- 1914 – Western Union introduces the first charge card
- 1920s-1930s – Telegrams experience peak popularity
- 1925 – Teleprinter machines

Historical Notes - 3

- 1933 – Western Union introduces singing telegrams
- 1936 – Varioplex Telegraph
- 1938 – Facsimile
- 1959 – TELEX
- Jan 27, 2006 – Western Union delivers the last telegram