# History of Communications Media

## Class 1

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# History of Communications Media

- Outline of Course
  - Question – Why Study the History of Media?
  - Evolution of Media
    - Pre-literate Cultures
  - The Origins of Writing
    - Writing Systems
    - The Alphabet and its Effects
    - Notes on Alphabetic and Pictographic Cultures
    - Writing Media
  - Printing and the Culture it Created

# History of Communications Media

- Outline of Course – 2
  - The 19th Century Media Revolution
    - Printing Innovations & their Consequences
    - Photography
    - Telegraph
    - Telephone
    - Motion Pictures
  - The 20th Century Media Revolution
    - Radio
    - Television
    - Xerox Machine
    - Computers & the Internet
    - Cell phones

# What are Communications Media?

- My definition:
  - The technologies, systems, and material artifacts used to communicate (and store) signals, data, messages, or information directed to one or more recipients, an audience, or the public.

# Why is the Study of Media Important?

– To a large extent, who we are now is the product of our memories of the past
  - Increasingly our memories of key events consist of media images and accounts
– Different media have different intrinsic defining characteristics in terms of:
  - What type(s) of information or message they can convey
  - How well they can convey it
  - The speed, completeness, and accuracy with which they can convey it
  - Whether they are point-to-point or broadcast or both
  - How people access them

# Why is the Study of Media Important? - 2

- As communication theorists and historians point out, changes in dominant communication technologies eventually cause changes in the culture
- New Communications Media like other new technologies:
  - Obsolete earlier ones or relegate them from a dominant role to a niche
  - Raise new issues and problems when adopted on a large scale
  - Often upset existing distributions of wealth, power, and status
    - Empower some (often new) groups and diminishes the power of others
      - Bring new businesses and corporations to the fore while often driving others out of business
    - Give rise to new social institutions to deal with the new issues and problems

# Why is the Study of Media Important? 3

- Communications Media differ in such socially relevant ways as:
  - The number and types of people who can access the media as either message/information senders or message/information recipients. This reflects:
    - Cost of the media
    - Technological sophistication required
    - Ease of use
    - The ease or difficulty with which society or the government can control access and/or content
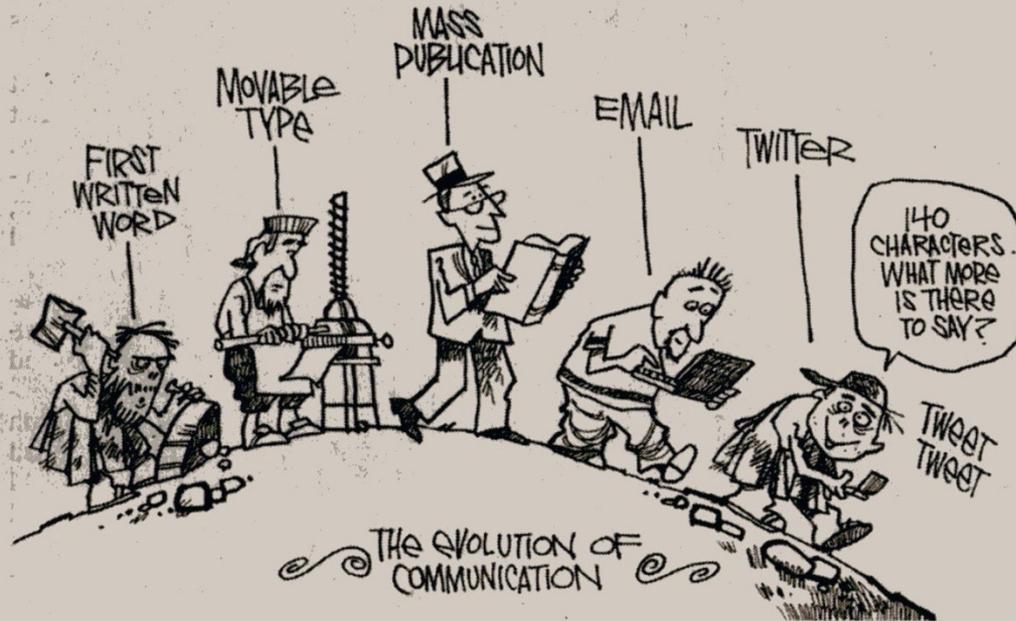
**History of Communications Media**

# The Five Eras of Media

- The history of media has gone through five cultural eras:

  1. Non-Literate Cultures
  2. Manuscript Cultures
  3. Print Cultures
  4. Media-influenced Cultures
  5. Media-dominated Cultures

# Non-Literate Cultures

- Characterized human societies prior to writing and also the illiterate peasants and lower classes in  many cultures after the invention of writing
  - Oral  & locality-based cultures

# Manuscript Cultures

- Characterized societies after the invention of writing but prior to printing
  - Literacy was restricted to a small elite
  - Divided into a "high culture" based on literacy and a "low culture" of the illiterate
    - The "low culture" was primarily an oral & locality-based culture, but there was some filtering down of concepts, information, and artifacts from the literate high culture

# Print Cultures

- Characterized  alphabet societies after the invention of printing
  - As time passes, an ever-larger proportion of the population becomes literate
  - While print is dominant, many elements of an oral culture persist
  - Begins with the book, poster, and pamphlet
    - Later comes the newspaper, the professional journal, and then the magazine along with other innovations

# Media-influenced Cultures

- Characterized 19th and early-20th century culture
  - Influenced by the telegraph, the telephone, and a railroad & post office system able to deliver mail and printed material (including newspapers) over vast areas at reasonable speed
  - Saw the emergence of a middle-class culture strongly influenced by the above media

# Media-dominated Cultures

- Characterized a 20th century culture in which radio, television, and later the computer/Internet become dominant influences
  - Increasingly, a "global village"
  - Increasingly, our experience of major or historical events is through the media rather than directly

# Non-Literate Societies

- Information input is largely local via
  - Personal observation
  - What one hears from neighbors and elders
- Learning consists of rote memorization and learning by apprenticeship, sometimes with the aid of art
  - Thoughts and ideas are normally expressed in the form of proverbs, poetry, epics, sagas, and myths
  - Imagery, especially statuary, is an important form of communication

# Non-Literate Societies - 2

- A good memory is highly valued in a non-literate society

- Knowledge is:
  - Preserved by means of rhymes, epic stories, and proverbs that are reciting in front of elders, teachers, or fellow villagers
    - Ritual and art are cultivated as keys to memory and preservation
  - Often lost over time due to the mortality of those with the knowledge and the effort involved in transmitting it to the next generation
  - Held in common

# Writing – The First Communications Media

- Writing first grew out of the need to inventory agricultural surpluses.
  - This required measurement and designation of ownership
- Writing evolved as merchants and priests/scribes used different clay tokens to represent different quantities and commodities

# Origins of Writing

- Writing systems arose in Mesopotamia before 3000 BC, in Egypt c3000 BC, in China by 1300 BC, and in Mexico before 600 BC

- The first type of writing system was the pictographic, then the syllabic, and finally the alphabet

- Early writing was limited to the professional scribes in the employ of the king or the temple priests

# 3 Types of writing systems

- Logographic – one symbol for each word or morpheme (e.g. Chinese, Mayan glyphs, & Egyptian hieroglyphics)

- Syllabic – one symbol for each syllable (e.g. Japanese *kana*, Mesopotamian cuneiform *, &* Linear B of Mycenaean Greece)

- Alphabet – one symbol for each sound or phoneme (e.g. Latin, Greek, Cyrillic, Hebrew, Arabic)

# Notes About Writing Systems

- No actual writing system employs one type of writing exclusively
  - English uses many logograms – numbers, $, %, &, and @ are common English logograms
  - Egyptian hieroglyphics used pictograms, but Egyptian pictograms also stood for sounds  as well as the things they were images of
    - Semitic-speaking persons picked up the system and stripped it down to pure symbols of sound in the form of the alphabet

# Chinese Writing

- All Chinese dialects use the same script
- Chinese script reflects
  - Pictorial representation
  - Use of diagrams
  - Use of one symbol to suggest another
  - Combination of signification and phonetics
- There are over 50,000 symbols in a Chinese dictionary
  - About a 1,000 symbols count for about 90% of Chinese writing

# Chinese Writing - 2



| | | | | |
|---|---|---|---|---|
| 志 Ambition | 刀 Chai | 福 Happiness | 和 Harmony | 實 Honesty |
| 貴 Honor | 愛 Love | 忠 Loyality | 愁 Melancholy | 忍 Patience |
| 平 Peace | 孝 Piety | 洪 Profundity | 禮 Propriety | 示 Revelation |
| 崇 Reverence | 義 Rightousness | 聖 Sage | 誠 Sincerity | |
| 神 Spirit | 道 Tao | 安 Tranquility | 尋 Truth | |
| 協 Unity | 健 Vigor | 德 Virtue | 智 Wisdom | |

# The Alphabet

- First alphabet originated c1800-1900 BC by Semitic peoples living in Egypt

- Apparently originated as a kind of shorthand for taking dictation

- Hebrew and other Semitic languages did not and do not have letters for vowels
  - if we were to follow Hebrew usage in English we would write and print 'cnsnts' for 'consonants'.
  - The Greeks developed the first alphabet with vowels

# What the Alphabet Did

- Made possible the creation of lists
- Converted traditional knowledge into an external object both available for inspection and no longer dependent on memory
- Led to the concept of history
- Led to the bifurcation of culture into a "high" culture based on literacy and a "low" culture of the illiterate

# What the Alphabet Did - 2

- Affected the way the Greeks saw the physical world
  - Led the Greeks to see the material world as analogous to the alphabetic process
- Made eventually possible the modern expansion of literacy and democracy
- Led to the development of law as a regulator of human behavior in place of oral custom and taboo

# What the Alphabet Did - 3

- Gave rise to prose
  - Prose made possible the creation of analytic statements

- Separated what is written from the writer
  - What is written in a scroll or codex stands apart from the person who composed it and the context in which it was written

- Led knowledge to take on an identity separate from that of the knower

# Pictographic vs Alphabet Cultures – 1

- The different historical paths that China and the West followed are to some extent a logical corollary of their different writing systems
  - A Pictographic writing system could easily be applied to a variety of different spoken languages
    - This allowed China to develop a common written language even though different spoken Chinese dialects were mutually unintelligible
  - An Alphabetic writing system was spoken language specific since the same concept in different languages used different words, each spelled differently

# Pictographic vs Alphabet Cultures – 2

- In China, ideographic literacy and the related study of the Confucian classics
  - Created a common written language Chinese culture that encompassed all of China
    - Those who shared this culture had more in common with each other than they did with the non-literate speakers of the local Chinese dialect among whom they lived
    - This shared culture fostered the development of a politically-unified state dominated by a largely-closed oligarchic elite
    - It fostered a strong cultural conservatism

# Pictographic vs Alphabet Cultures – 3

- In the West, alphabetic literacy did not foster political unification
  - In the manuscript cultures of the Roman Empire and Medieval Europe, there existed both a clerical, literate Latin-speaking elite and a secular elite of government officials, feudal lords, lawyers, and wealthy merchants who were literate in their own vernacular language. Both elites had an identity that was separate from the illiterate locals who spoke only local languages and did not speak Latin
    - The consciousness of speaking and writing a vernacular language helped foster an ethnocentrism and nationalism that led to political disunion and eventually religious schism.

# Pictographic vs Alphabet Cultures – 4

- Alphabets linked together standardized repeatable elements from which words are composed
  - The linking together of letters to form words provided a paradigm for
    - Deductive logic in which ideas or arguments are linked together to form arguments
    - Standardized components, weights, and measures
- Alphabets led to alphabetization of words (which is a form of classification)
  - Classification of words (and things) eventually led to scientific classification
    - Alphabetical order in Western dictionaries  vs Varied order in Chinese dictionaries

# Writing Media

- There are two aspects to writing
  - The pictographic, syllabic, or alphabetic symbol system that is used to convey a message
  - The physical media upon which the message is written
- Different physical writing media had varying impacts due to differences in durability, cost, content density, availability, and ease of manufacture

# Writing Media

- Different Types of Writing Media - 1
  - Stone – Was permanent but not transportable
  - Clay Tablet – Had to be written upon before the tablet hardened. Long-lasting but fragile
  - Papyrus – Was light in weight; relatively cheap; easily transportable; suitable for both writing and drawing pictures; suitable for scrolls, but could be supplied only by Egypt
  - Parchment – Was relatively durable and long-lasting; suitable for codex books that contained both writing and drawing; expensive to manufacture, but could be produced anywhere since it was made from animal skins

# Writing Media - 2

- Different Types of Writing Media – 2
  - Rag Paper – Was considerably cheaper than parchment, because it was relatively easy to produce; made a good writing and drawing media; turned out to be a superior media for printing; relatively long-lasting and easily portable
  - *Wood Pulp Paper – Was cheaper than rag paper, thus replacing rag paper in cheaper books and newsprint; not a very long lasting media due to its tendency to degrade as a result of acidification. 19th century invention*

# Writing Media - 3

- Rag Paper - 1
  - Manufactured by taking linen and cotton rags, wetting them and letting them mold, pounding the rags until their threads become unwoven, soaking them in giant vats, straining the resulting pulp through a sieve-like mold, and then hanging the paper up to dry
  - Invented in China c105 AD; its manufacture spread into Islamic areas with the Islamic capture of Turkestan in 751 and reached Europe c1275.

# Writing Media - 4

- Rag Paper – 2
  - Unlike parchment which could be produced over wide areas, paper manufacturing took place in cities with plentiful supplies of water and water power. In such cities, there were both cheap supplies of rags and markets for the paper
  - Paper had the following effects in Europe:
    - It helped move learning and education from rural monasteries to the new urban schools and universities
    - It encouraged merchants and traders to become literate in their native vernacular language in order to create and keep needed accounts and records.
    - Paper led to the creation of a body of manuscripts in the vernacular as well as in Latin
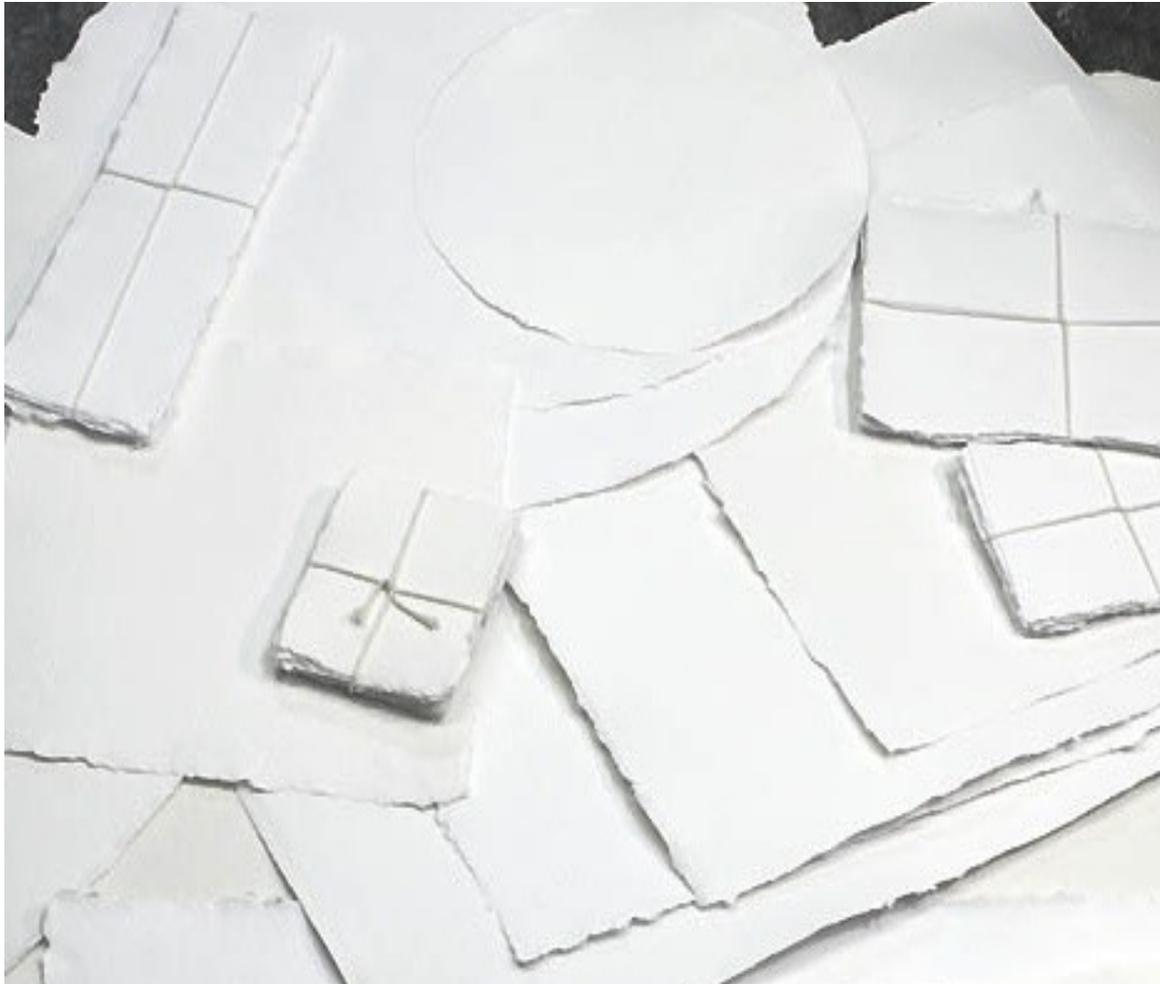
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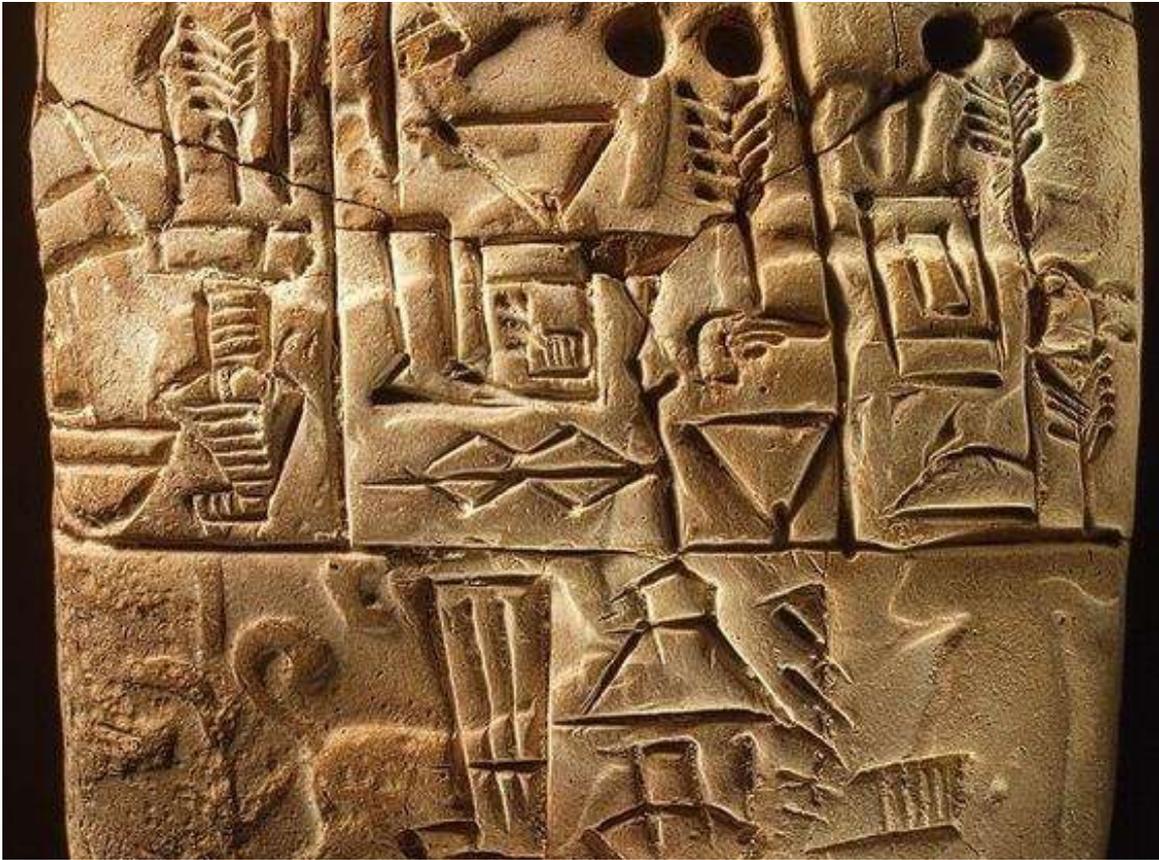
**Clay Tablet**

**Papyrus Scroll**

**Codex Sinaiticus**

**Illuminated Manuscript**

**Rag Paper**

# A Manuscript Society

- The Invention of Writing, whether alphabetic or pictographic, created what I call a Manuscript Society
  - Marked by a small literate elite and the illiterate masses
    - This literate elite generally, with some exceptions, resided in cities and dominated the society politically and economically
    - The illiterate masses, again with exceptions, consisted of the rural peasants and craftsmen and the urban lower classes

# Manuscript Societies - 1

- Society consists of a high literate culture and a low village culture

  - The high literate culture was the source of the intellectual culture of the society

  - The low village culture was an illiterate oral culture, but it often created both folk art and technology

  - The relation between the two cultures was complex

- Governmental administration was dominated by the literate

  - As a result, written laws either replace oral customs or incorporate them

# Manuscript Societies - 2

- Books and scrolls are treasured items
- As time went on, the manuscript scroll gave rise to the codex or bound book and the following innovations:
  - Cursive writing
  - Small portable codices
  - Abbreviations
  - Mass copying of manuscripts
  - Word separation
  - Punctuation of text  (became standard in the later Middle Ages0

# Manuscript Societies - 3

- Some characteristics of a Manuscript Culture
  - Texts tended to be read aloud even to those who could read
  - Letters and documents were quasi-public
  - Writing served as input into the oral world
  - Manuscripts had incipits and chapter/verse designations rather than titles or page numbers

# Manuscript Societies - 4

- Some characteristics of a Manuscript Culture (cont)
  - The sermon and public readings served as news dissemination media as did the songs of traveling musicians and the recitations of traveling poets and troubadours
  - What was ancient was venerated
  - Forgery was common
    - As a result, oral testimony preferred over written documents

# The Impact of Printing

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

# Printing

– Johann Gutenberg of Mainz was a German goldsmith and printer:

- The first European to use movable type printing (c 1439, and
- The global inventor of the mechanical printing press.

– After printing several books, he started printing his famous Gutenberg Bible in 1455

- About 180 of these Bibles were printed
- The Gutenberg Bible is more a printed manuscript rather than a printed book

# Printing

- Gutenberg's printing press depended on 3 innovations which he combined
  - Movable type cast in metal
  - Oil-based ink
  - Wooden press similar to the screw presses used for pressing olives to make olive oil and grapes to make wine

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# Printing

- Printing spread very rapidly
  - By 1480, 110 towns had printing presses
  - By 1500, 236 towns had print shops
- It greatly multiplied the number of books and titles
  - Before Gutenberg, there were an estimated 30,000 manuscript books in Europe
  - By 1500, there were more than 20 million books in 35,000 titles
  - By 1600, there were more than 200 million books

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# Some Notes about Printing - 1

- Printing involved not only text but also images, maps, diagrams, and data tables
- Economics of printing – high upfront costs combined with relatively small marginal costs for each additional item
  - This contrasted sharply with the economics of manuscript production where upfront costs were low but marginal costs were extremely high

# Some Notes about Printing – 2

- Out of printing emerged not only the printed book, but also the:
  - Broadside
  - Pamphlet
  - Leaflet
  - Newspaper
  - Scholarly Journal
  - Poster
  - Magazine
  - Cartoon
  - Comic Strip
- Printing took a long time to show its far-reaching social, political, economic, and cultural effects