

History of Communications Media

Class 1

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History of Communications Media

- Outline of Course
 - Question – Why Study the History of Media?
 - Key Definitions
 - Some Notes About:
 - Information
 - Human Perception and Communication
 - Pre-literate Cultures
 - The Impacts of Literacy
 - The Impact of Printing

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 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
 - How recipients receive, assimilate, and react to the information

Why is the Study of Media Important – 2

- 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 that affect
 - The types of information they can convey
 - Whether they are point-to-point or broadcast or both
 - How people access them

Why is the Study of Media Important?

- 3

- 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 other technologies or relegate them from a dominant technology 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
 - Give rise to new social institutions to deal with the new issues and problems

Why is the Study of Media Important?

4

- 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

Information – What is it?

- The term has several definitions because it is a term that embraces many different things
- We will get into the various definitions during this course
- We will start out by briefly:
 - Looking at how the brain generates information
 - Discussing different categories of information
 - Looking at information from both a content and an individual perspective

The Human Brain and Information

- Information originates in the combination of sense perceptions and data stored in human memory.
 - Recall of related information in memory
 - Recognition and storage in short-term memory
 - Linking to other memories
- By combining sense perceptions with knowledge in long-term memory, the brain creates new knowledge

The Human Brain and Information – 2

- The brain seems to have different systems for integrating image input data and other sensory input data with information or knowledge structures in long-term memory
 - One consequence is that we have a memory for pictorial images that greatly exceed our memory for words or names.

Basic Categories of Information

- Information can be broken down into 4 basic categories
 - Semantic
 - Visual
 - Conceptual
 - Procedural
- These categories have distinct implications for use, learning, teaching, and communication

Semantic Information

- Semantic information consists of symbols such as words, names, and numbers
 - Can represent things, persons, places, actions, or states of being
 - Semantic symbols have no direct link to the objects signified
 - They can be combined via language syntax to describe present, past, future, actual, conditional, or imaginary realities

Visual Information

- Visual information consists of information in the form of visual or pictorial representations of real and/or imaginary person(s), place(s), or thing(s)

Information – Content Perspective

- From a content perspective, it consists of the following:
 - Fact – a unique bit of information that identifies an object, person, place, or date
 - Concept – a category of items or ideas that share common features
 - Procedure – a series of steps that show how to make or do something
 - Process – a description of how something works or operates
 - Principles – rules or criteria that predict an outcome

Concepts

- Notes about Concepts
 - Can be either abstract or perceptual
 - Have a prototype or best example
 - Have three levels
 - Superordinate
 - Basic
 - Subordinate
 - Expressed in the form of verbal information

Information – An Individual Perspective

- From an individual perspective, it consists of 5 rings of data, ideas, and knowledge
 - Internal Information
 - Conversational Information
 - Reference Information
 - News
 - Cultural Information

Information and Communication Media

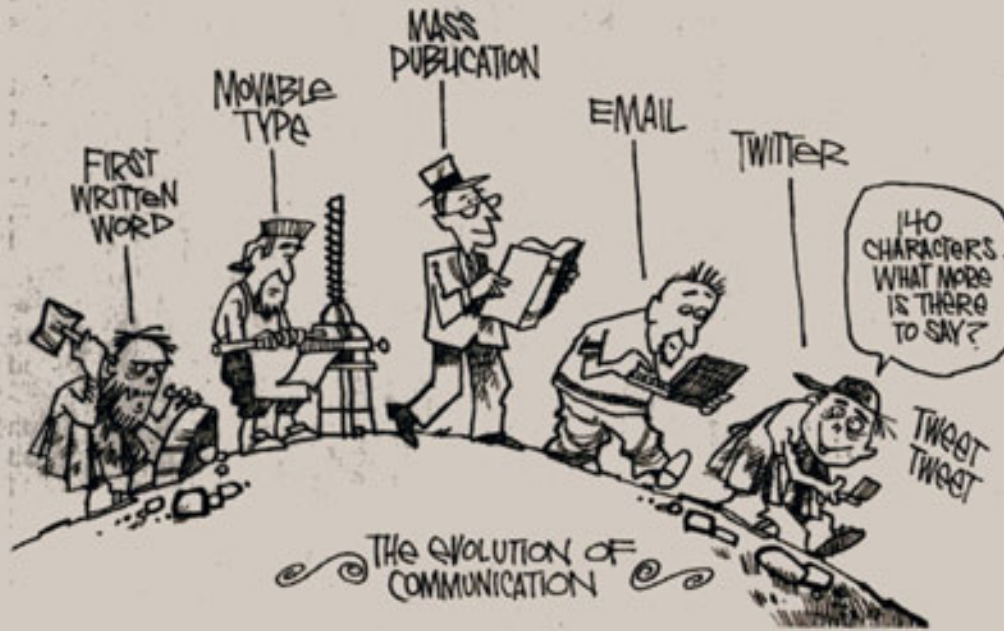
- Some key points
 - As noted before, different media have intrinsic defining characteristics that affect
 - The type(s) of information they can convey
 - The speed, completeness, and accuracy with which they can convey it
 - Thus, certain types of information can be more effectively preserved and transmitted in some media than in others
 - This we will get into when we discuss specific media
 - The above considerations have implications for the use of media in teaching, learning, and conveying messages to people

The Five Eras of Media

- The history of media can be broken down into five cultural eras:
 1. Non-Literate Cultures
 2. Manuscript Cultures
 3. Print Cultures
 4. Media-influenced Cultures
 5. Media-dominated Cultures

Laugh Lines

NYT 3/29/2009



Mike Keefe The Denver Post. dePIXion Features

History of Communications Media

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 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”

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
 - Most knowledge is some form of rhyme and poetry
 - Thoughts and ideas are normally expressed in the form of proverbs
 - Imagery, especially statuary, is an important form of communication

Non-Literate Societies - 2

- A good memory is highly valued
- Knowledge
 - Its preservation often consists of reciting in front of elders, teachers, and fellow villagers
 - Ritual is often a mode of preservation
 - Often lost over time
 - 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

Writing – 2

– 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)

Writing - 3

- 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

Writing - 4

- Notes about writing systems -2
 - 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 logographic, 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

Writing - 5

- Notes about 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

𐤅 waw	𐤆 digamma	𐤇	𐤈	F	F
				G	G
𐤉 zayin	𐤊 zeta	𐤋			
𐤌 heth	𐤍 H(h)eta	𐤎	𐤏 H	H	H
𐤐 teth	𐤑 theta	𐤒			
𐤓 yod	𐤔 iota	𐤕	𐤖	𐤗	𐤘
					𐤙
𐤛 kaph	𐤜 kappa	𐤝	𐤞	K	K
𐤟 lamed	𐤠 lambda	𐤡	𐤢	L	L
𐤣 mem	𐤤 mu	𐤥	𐤦 M	M	M
𐤧 nun	𐤨 nu	𐤩	N	N	N
𐤫 samekh	𐤬 xi (chi)	𐤭			
𐤯 'ayin	𐤰 o(micron)	𐤱	𐤲	O	O
𐤳 pe	𐤴 pi	𐤵	𐤶 P	P	P
𐤷 sade	𐤸 san	𐤹			
𐤼 qoph	𐤽 koppa	𐾀	𐾁	Q	Q
𐾃 resh	𐾄 rho	𐾅	𐾆 R	R	R
𐾈 sin	𐾉 sigma	𐾊	𐾋 S	S	S
𐾌 taw	𐾍 tau	𐾎	𐾏 T	T	T

Different Alphabets

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

The Alphabet - 2

- 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

The Alphabet - 3

- What the alphabet did:
 - 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

The Alphabet - 4

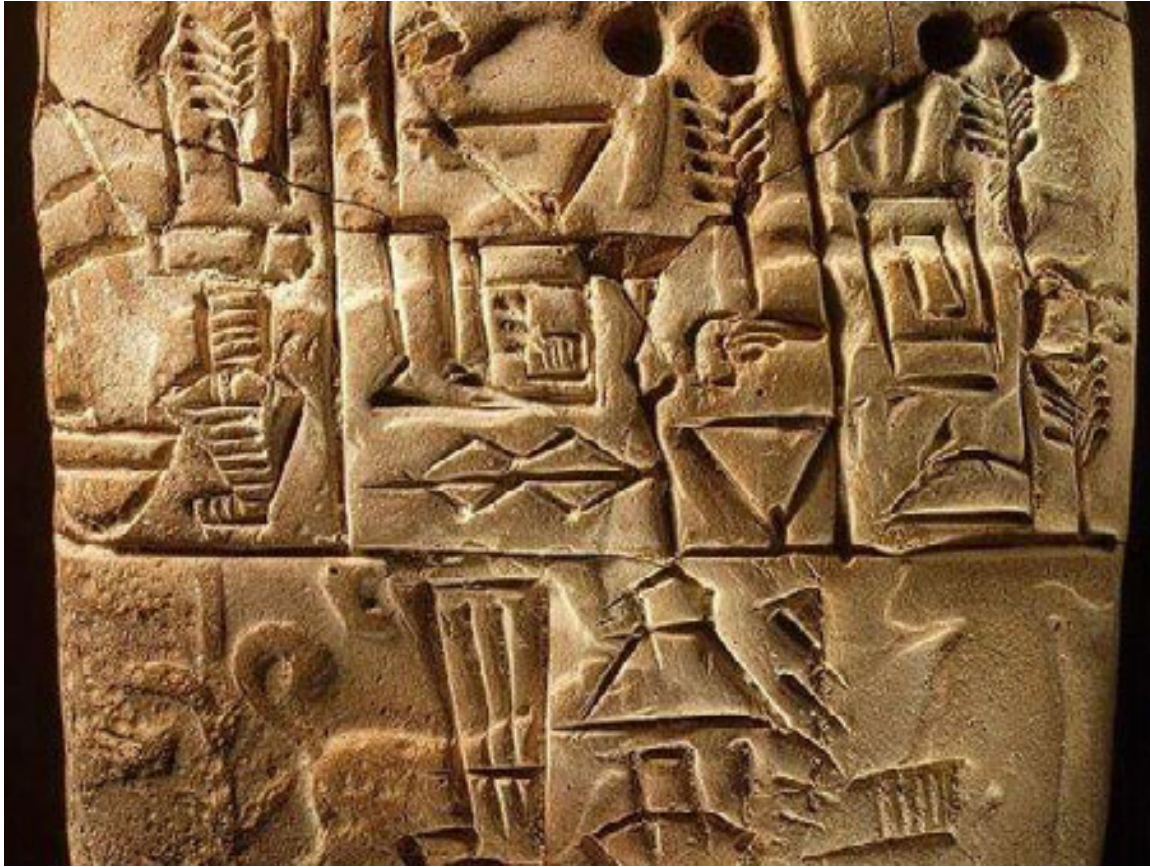
- Ideographic vis-a-vis Alphabet Cultures – 1
 - The different historical paths that China and the West followed are to some extent a logical corollary of their different writing systems
 - In China, ideographic literacy and the related study of the Confucian classics
 - Created a common, largely-closed oligarchic elite
 - » That was spread all over China and
 - » Whose members had more in common with each other than they did with the non-literate speakers of the local Chinese dialect among whom they lived
 - Fostered a strong cultural conservatism

The Alphabet - 5

- Ideographic vis-à-vis Alphabet Cultures – 2
 - In the West, alphabetic literacy had more diverse effects
 - In the manuscript cultures of the Roman Empire and Medieval Europe, there existed a literate Latin-speaking elite with an identity that was separate from the illiterate locals who spoke only local languages and did not speak Latin
 - » But this elite was more open and more diverse since it embraced government officials, military officers, clerics, and merchants
 - With printing, it gave each vernacular language a written form
 - » The consciousness of speaking and writing a distinct language helped foster an ethnocentrism and nationalism that led to fractured lands, fractious governments, and schismatic religions



Stone Stele



Clay Tablet



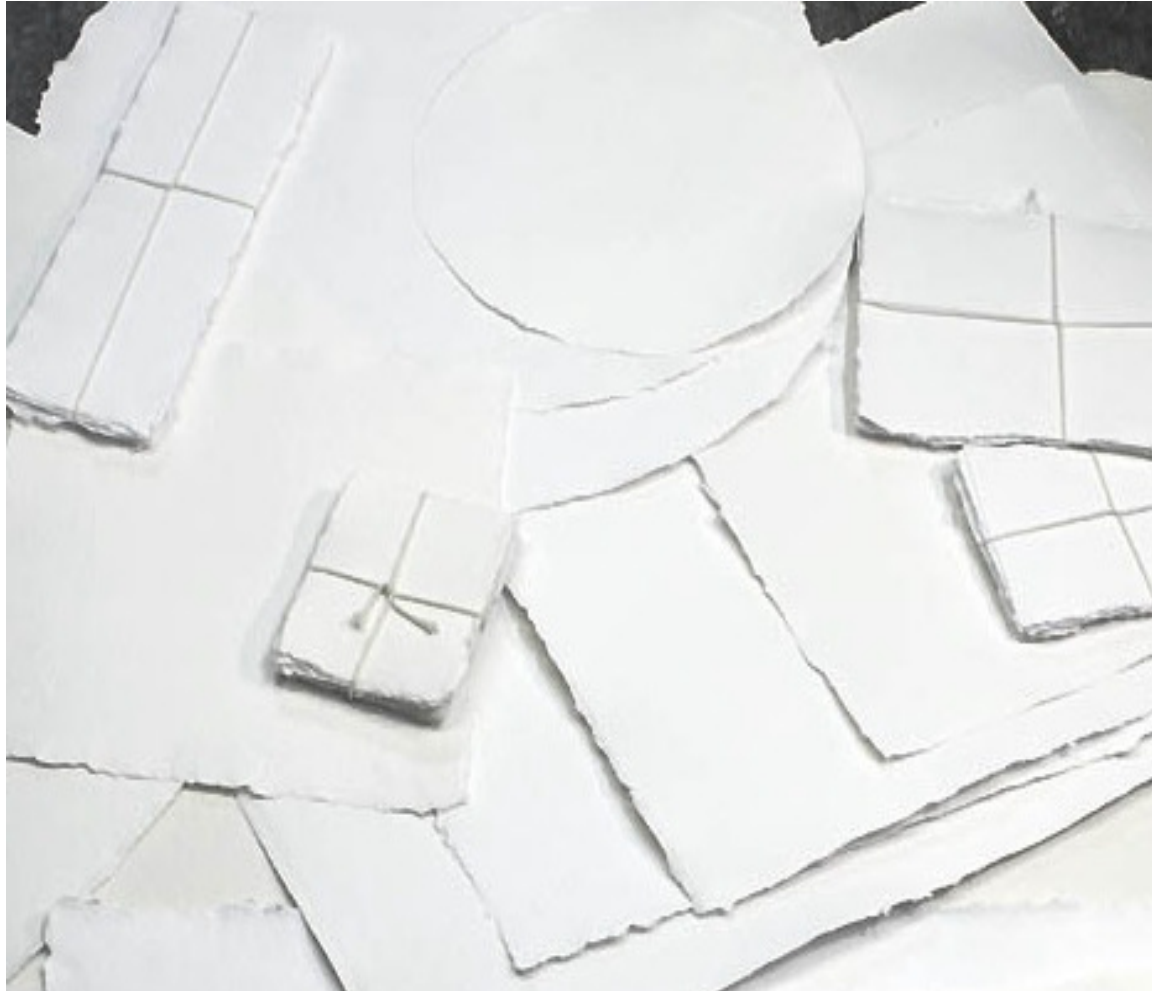
Papyrus Scroll



Codex Sinaiticus



Illuminated Manuscript



Rag Paper

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

Manuscript Societies

- Society consists of a high literate culture and a low village culture
- Written laws replace oral customs
- Governmental administration comes under the dominance of the literate
- Forgery becomes possible

Manuscript Societies - 2

- 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 - 3

- Books are treasured items
- The manuscript book had interesting corollaries
- Word separation and punctuation of text did not become standard until the later Middle Ages
- The sermon and public readings served as news dissemination media
- What was ancient was venerated