UC Berkeley School of Information

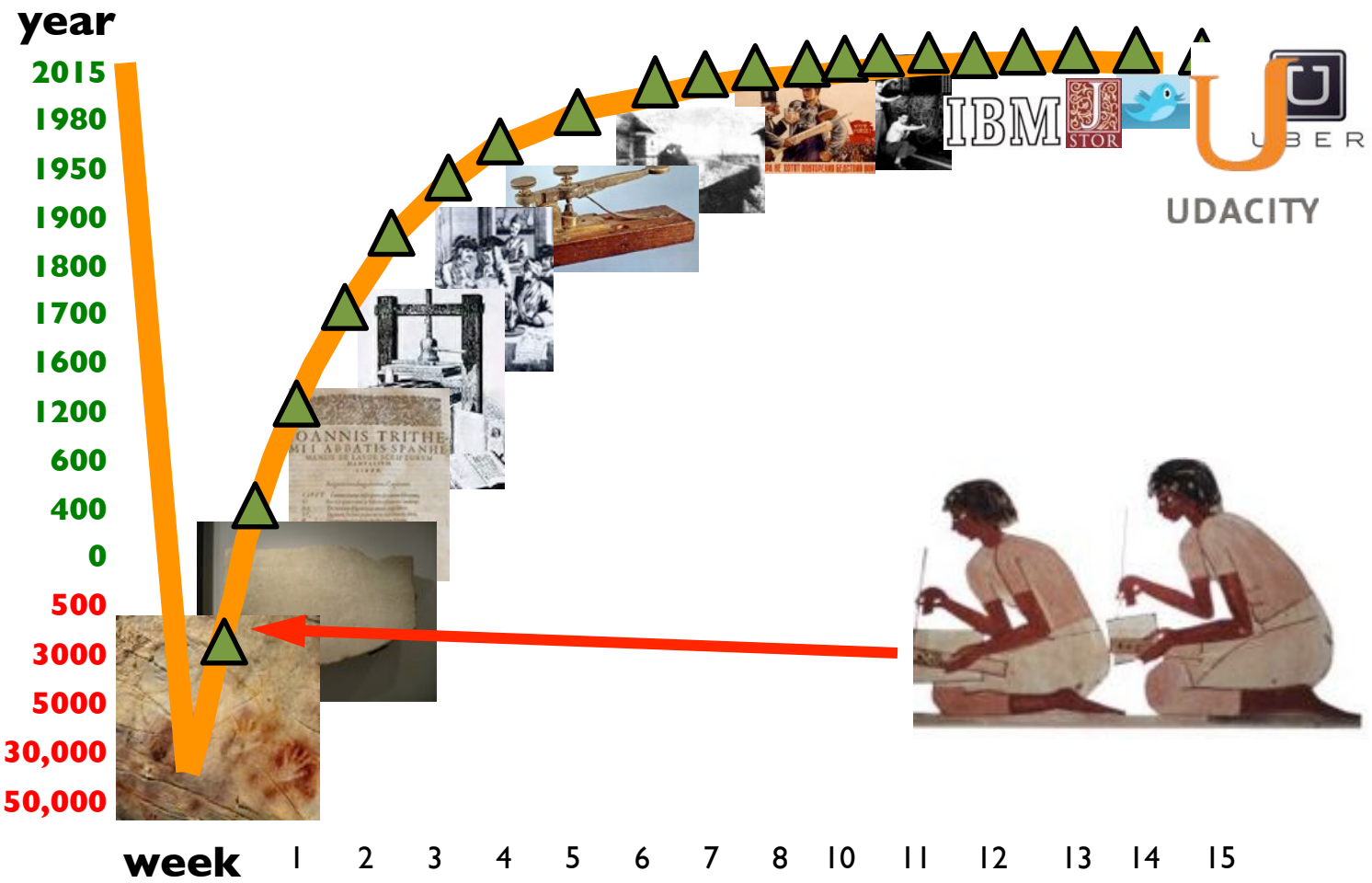
What follows from writing?

Geoff Nunberg

IS 103
History of Information

Feb 3, 2015

The emergence of literate societies



Techniques of cave painting

Bone black

Hematite

Yellow ochre

Rembrandt, portrait of Phillips Lucasz,

van Mieris, Pictura 1661

Itinerary, 2/3

Writing & Technological Determinism

Writing and the Stages of Culture

Assignment:

> Sarah A., Ning D., Jamin K., Alexander T. Kun-Hyoung K, Jonathan A.

What follows from writing

Alphabets vs logographic systems

Cognitive implications of literacy

Leapfrogging literacy?

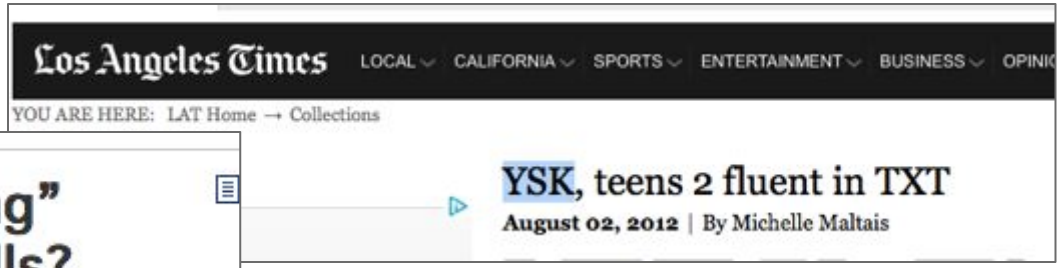
Writing & Technological Determinism

Writing & Technological Determinism

Teachers say text msgs r ruining kidz riting skilz

Text and instant messaging are negatively affecting students' writing quality on a daily basis, as they bring their abbreviated language into the classroom. As a result of their electronic chatting, kids are making countless syntax, subject-verb agreement and spelling mistakes in writing assignments. *American Teacher*

Will text messaging produce generations of illiterates? Could this—OMG—be the death of the English language? *Newsweek*



Writing & Technological Determinism

The accelerated automation of word-processing makes possible a new immediacy in the creation of public, typified text. ….

Digital writing… invites the formulation of thought directly in the electric element... There is not only a new technology available in word processing but a gradually emerging sense of a new kind of community. And in such a community, psychic life will be redifined. Michael Heim, *Electric Language: A philosophical study of word-processing,* 1987

Writing & Technological Determinism

The Swackhamer Doctrine

Telegraph requires brevity & directness, forces users to discard the verbosity and complexity of the prevalent English style.

> The telegraphic style terse, condensed, expressive, and utterly ignorant of synonyms will propel the English language toward a new standard of perfection."
>
> "Influence of the Telegraph upon Literature," by Conrad Swackhamer, *United States Democratic Review*, 1848

Writing and the Stages of Culture

Writing and the Stages of Culture

"primitive" societies	⟷	"advanced/"developed" societies
"simple"/"closed"/ "savage"	⟷	"complex"/"open"/ "domesticated"
Anthropology	⟷	Sociology
Prehistory	⟷	History
Orality	⟷	Literacy

(after Jack Goody, *The Domestication of the Savage Mind*)

Modes of Cultural Transmission in Oral Societies

Milman Parry

Oral societies: pass on culture in "long chain of interlocking conversations…" (including rituals, etc.); culture stored in memory.

> In [oral] culture, storage and transmission between the generations can be carried on only in individual memories. Linguistic information can be incorporated in a transmissible memory,… only as it obeys two laws of composition: it must be rhythmic and it must be mythical. Eric Havelock, *The Coming of Literate Communication to Western Culture*

Cf the complex metrical formulas of oral poetry…

Jack Goody: In oral cultures, no fixity, "dictionary meanings."

The "past" is simply a way of interpreting/explaining the present. CF Tiv (Nigeria), Gonja (Ghana).

Emergence of Literate Societies

Egyptian scribe, ca. 1500 BCE

In early literate societies, literacy restricted to small priesthood or guild.

(association of literacy w/ magic)

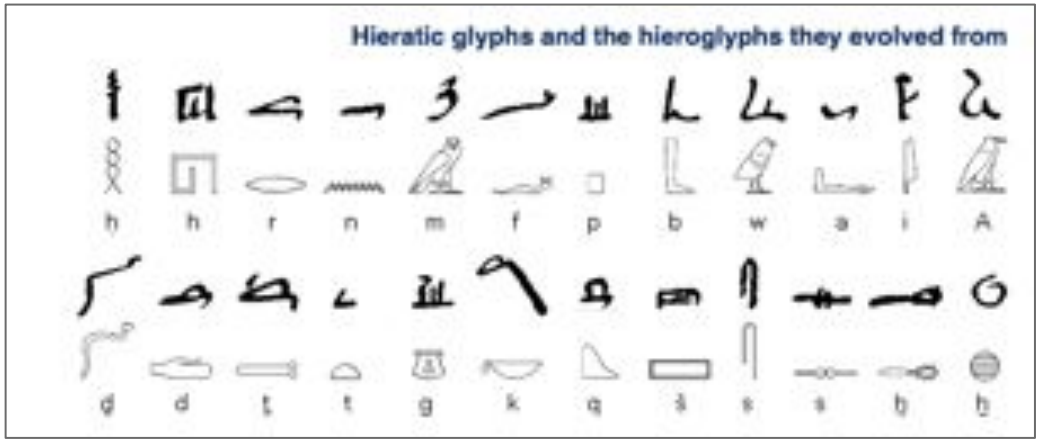
Functions of literacy restricted to record-keeping, administration, rituals, laws, monumental inscriptions, etc.

Emergence of Literate Societies

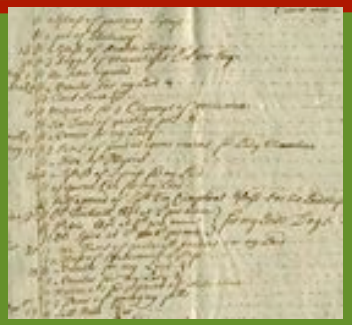
Jean-François Champollion

Forms of Egyptian writing:

- Hieroglyphic
- Hieratic
- Demotic



Consequences of literacy: "What's in a List"



Writing makes possible lists/arrays of inventories, geneologies, words, plants and animals, administrative categories, registers, etc. that make complex administration possible.

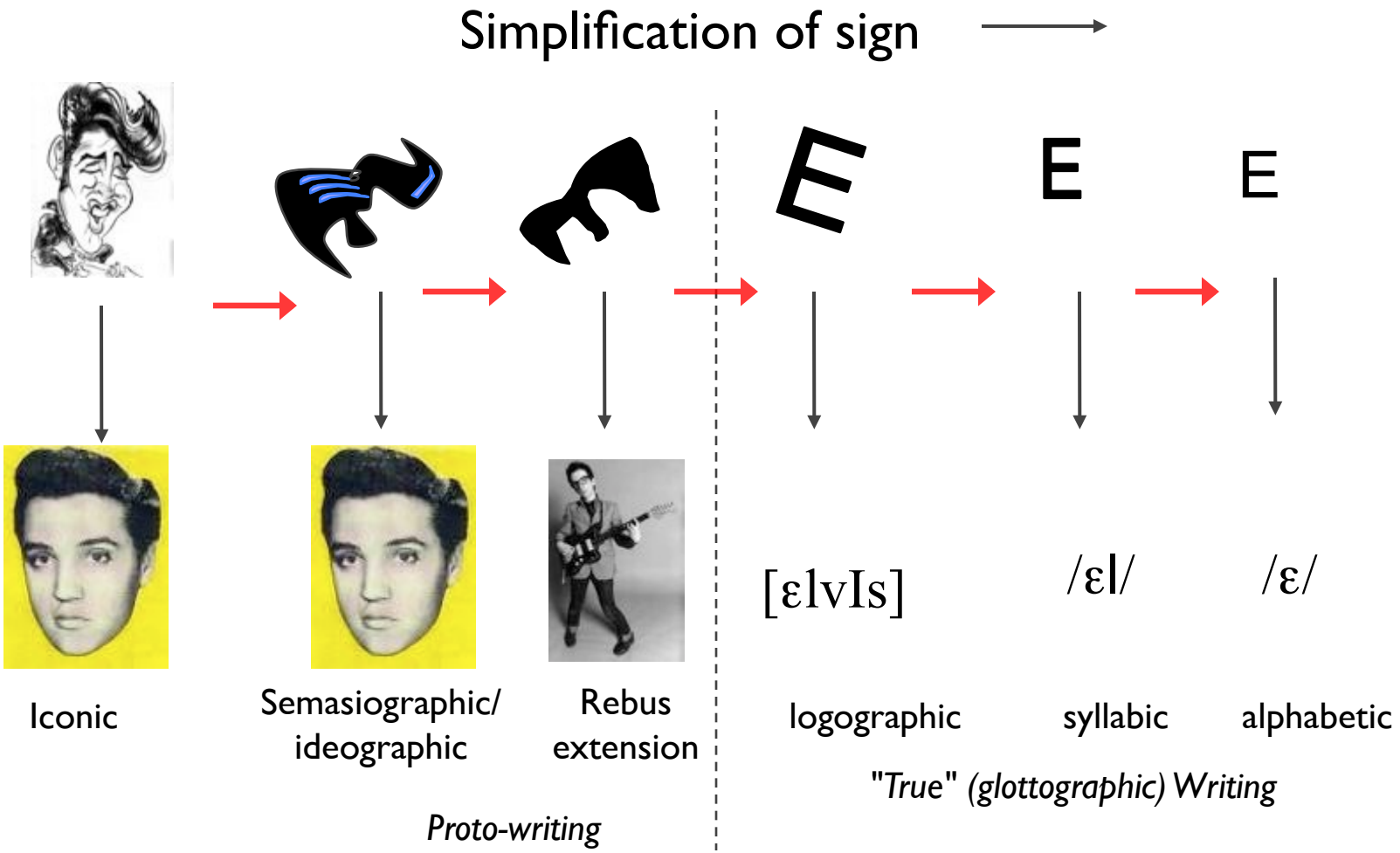
List = "locational sorting device."

Creates awareness of distinct possibilities of order. Cf varieties of lexical lists, catalogues, etc.

But cf also existence of complex lists in oral societies (Panini's grammar of Sanskrit -- 6th c. BC)

Consequences of the Alphabet

Development of Written Symbols



Emergence of the Alphabet in Greece

First "true" alphabetic script emerges in ca. 750 BC in Greece

"Cup of Nestor" ca. 750 BC, with earliest known Greek inscription; found near Ischia in Italy

Changes accompanying literacy in Greece

Writing as the "technology of the intellect"

Transition from "mythical" to "logico-empirical" thought

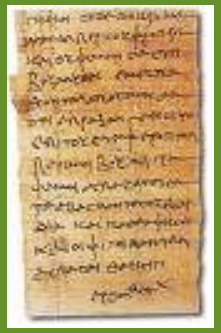
Emergence of logic & philosophy, history, etc.

Past is no longer mutable -- multiple versions exist. Possible to question inconsistencies, etc.

Writing detaches words from context, makes critical consideration of meanings possible. Emergence of "systems of rules for thinking"

Systematization/compartmentalization of fields of knowledge.

"Alphabetic Societies"



Alphabetic scripts are easier to learn, facilitate development of widespread literacy.

"This invention… could be learned by a majority of the population, thus creating the possibility of a popular literacy." Havelock

Aided by introduction of papyrus from Egypt.

Expansion of functions of literacy to other genres -- poetry, history, letters, etc.

By 5th century BC, Greece is an "alphabetic society" (Havelock)

Does the alphabet drive societal development?

At social level: Does writing facilitate or determine cultural & cognitive changes?

E.g., Geoffreys Lloyd on development of Greek and Chinese science: role of debate in political life, testing of ideas, patronage

> "The Chinese norms, were identification with a group and aspiration toward an imagined orthodoxy.... They were the mirror image of the Hellenic emphasis on a thinker's own ideas even when he belonged nominally to a group" Chinese scholars "discouraged open disputes with contemporary rivals over concepts….Compared with their Chinese counterparts, Greek intellectuals were far more often isolated from the seats of political power"

Assignment for 2/3

Havelock writes:

> The introduction of the Greek letters into inscription somewhere around 700 B.C. was to alter the character of human culture, placing a gulf between all alphabetic societies and their precursors. The Greeks did not just invent an alphabet, they invented literacy and the literate basis of modern thought [55] ….It is no accident that the pre-alphabetic cultures of the world were also in a large sense the pre-scientific cultures, pre-philosophical and pre-literary.[58]

Consider just one aspect or element of this broad claim. Taking into consideration both Havelock and Gough's articles, evaluate the claim from the point of view of either McLuhan or Williams.

Assignment for 2/3

Be like him!

Not like her!

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Sarah A.

Havelock's claim that "the Greeks did not just invent an alphabet, they invented...the literate basis of modern thought" is a deterministic, McLuhanesque understanding of the way in which the advent of a technology (the alphabet) fundamentally altered human consciousness (i.e. "the literate basis of modern thought"). Williams would challenge this claim as Gough does when she points out that literacy is "an enabling factor" whose consequences are linked to "those of other techniques…or of other institutions" [55]. …Gough, in examining the literate cultures of pre-modern India and China (who used syllabic and ideographic alphabets), further supports William's argument that technological determinism substitutes "the random autonomy of invention or an abstract human essence" for the social, political, and economic factors from which technologies are developed [123]. Pre-modern India and China did not fail to develop "modern thought" as Havelock understands it, but developed their own conceptions around the progression of time, the role of the individual, and other guiding principles in light of culturally specific literary conditions.

Ning D.

From Williams' perspective, although the invention of alphabets may have been a necessary condition for widespread literacy, it didn't sufficiently account for the shift in the "basis of modern thought" (Havelock, 55) as Havelock asserts. …as Gough explores in her article, the social and cultural practices in fact play a dominant role when it comes to the development of modern civilization's characteristics. By using India and China as variable models for Eastern societies, Gough makes a point that technology is not entirely irresistible and deterministic across all civilizations, as McLuhan would argue. In China, for example, writing as a communication medium was rather a component in the overall process of "linear codifications of reality." (Gough, 56) This formation of modern thought was not distinctly separate from the past, but unified with the society's historical values such as the Buddhist "conscious striving for objective truth." (Gough, 50) The Chinese exploration of scientific logic was therefore not driven by literacy but by larger social systems, customs and beliefs. …

Alexander T.

I want to consider the claim and implications that Havelock makes in stating that in creating the alphabet, the greeks also created literacy. It is true that with written language comes literacy. However, the creation of literacy does not necessarily create a gulf between people and societies. The origin of written language comes from the spoken word. In the transition between spoken and written, the main difference is the retention of information. As Havelock states, information can be transformed into transmissible language. (2) There is not enough evidence at this time though to determine if written language versus illiteracy differentiate in fields like science and independent thought. Further studies need to be conducted for conclusions to be drawn. (Scribner 22, 23) Indeed, even Gough states that there is no distinction that widespread literacy creates political structures as some have claimed. (55) Based on this preponderance of variability in accounts, the conclusion that the creation of the alphabet and thus literacy created a divide in people seems unfounded. Although it might be a reasonable conclusion to draw, more evidence is needed to substantiate it.

Jamin K.

With the Greek introduction of a literal alphabet, scholars were able to record their ideologies onto paper and keep these records to disseminate ideas and track history. The actual creation of the Phoenician alphabet comes second in importance to the monumental societal change which the adoption of literacy brought on, "for the message of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs" (McLuhan 8). By inventing "literacy and the literate basis of modern thought," (Havelock 55) Greek civilization surpassed its predecessors in trailblazing a form or medium for written communication and allowing for the transfer of philosophical theories to interconnect peers, as well as pupils to their scholars. In the mentality of McLuhan, the Greeks, with their invention of inscription, provided a medium from which humans could mass present and associate literate extensions of themselves and their thoughts whereas, beforehand, the absence of written communication prevented the intermingling of varying theories across communities and relied purely on direct, oral communication to spread ideas--comparatively minimal in its scope.

Kun-Hyoung K.

If Havelock's claim holds true, then the emergence of alphabetic and scientific cultures is also the turning point in which people are separated into classes based on literacy and knowledge. From the standpoint of technological determinism, McLuhan would interpret the emergence of alphabetic and scientific cultures to be an irreversible transformation of human existence…Gough argues that while "social classes and occupational groups are necessarily divided from each other partly on the basis of reading habits…[she] would not…regard this as a primary source of division between social classes" (84). While that may be true, the emergence of alphabetic and scientific cultures is undeniably a central pillar of today's society in which education and knowledge act as distinguishers between those who are learned or literate and those who are ignorant or illiterate. Therefore, from McLuhan's deterministic perspective, literacy in alphabetic and scientific cultures is an agent of social change that separates people based on knowledge and education.

Jonathan A.

Williams would be leery of this claim. He would question that the invention of the alphabet means nothing less than the invention of "literacy the literate basis of modern thought."…. However, Gough points out that India and China both had substantial literacy even though they did not have an alphabet [83]. Williams would tend to side more with Gough on this point. Havelock is looking at the technology of the alphabet as something separate from the societal wants and needs. Havelock sees "the medium as the message," as the alphabet seems to create literacy regardless of its practical use or social requirements of the script. However, China developed literacy with a logographic system, while other logographic systems didn't bring about literacy in their respective societies. The specific system/technology of writing does not seem to matter as much as the specific practice or general intentions of the writing system. Williams points out that this disregard of intention is a major weakness of any "medium is the message" interpretation [120-121].

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alphabetic vs logographic systems

Ultimate triumph of the alphabet?

Chinese Typewriter has 72 keys and 576 characters. You press two keys at the same time, one for the top part of a character and one for the bottom. This puts eight words into printing position. You select and print the word you want by pressing one of the eight white keys.

Chinese Typewriter 1947

"To become significantly learned in the Chinese writing system normally takes some twenty years. Such a script is basically time-consuming and élitist. There can be no doubt that the characters will be replaced by the Roman alphabet as soon as all the people in the People's Republic of China master the same Chinese language ('dialect'), the Mandarin now being taught everywhere. The loss to literature will be enormous, but not so enormous as a Chinese typewriter using over 40,000 characters."
Walter Ong, "Writing Restructures Consciousness," 1982

Is Romanization Inevitable?

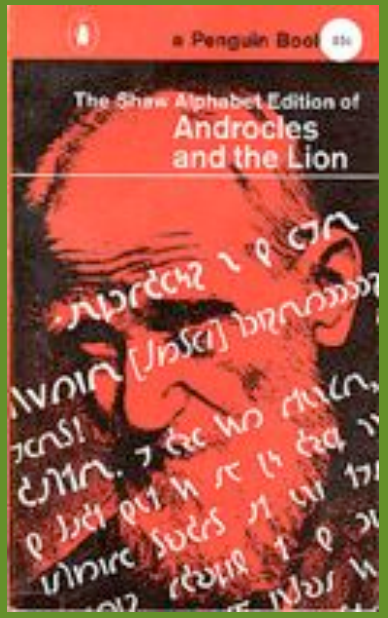
Barriers to shift to Pinyin:

- Attachment to tradition and to characters
- Loss of symbols of Chinese identity
- Foregrounding of dialect differences/reshaping of national identity?
- Apprehension about radical change

Favoring shift:

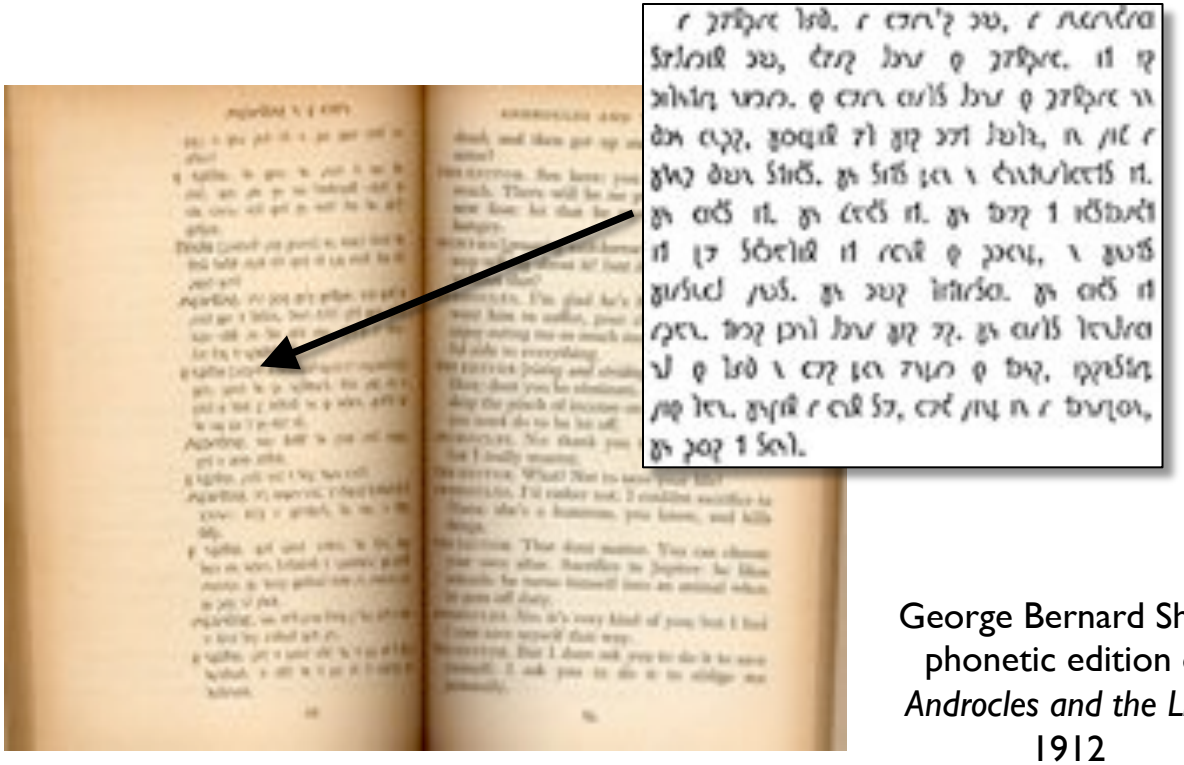
- Ease of learning
- Technological advantages (data imput, texting, etc.)
- Emerging digraphia/multilingualism
- Spread of Mandarin

Contrasting alphabetic and logographic systems



Virtues of "pure" or "phonetic" alphabetic writing:

Ease of learning. Typographic simplicity. Ease of processing.



George Bernard Shaw, phonetic edition of *Androcles and the Lion*, 1912

Contrasting alphabetic and logographic systems

Virtues of (semi-)logographic systems

Doesn't privilege one dialect. Symbolic importance for linguistic community -- cf irregularity of English spelling.

"Purely" phonetic systems can lead to ambiguities; Cf French *os, ô, eau, eaux, haut, hauts, au, aux,* etc.

How "phonemic" is English?

famous: uh should: U

journey: 3 you: oo

loud: ow _____?: y__

through –oo *bough* -- ow

though – oh *cough* -- awf

thought – aw *tough* – uhf

_____?: -uhp

…

Contrasting alphabetic and logographic systems

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And uhp in _____

Contrasting alphabetic and logographic systems

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And uhp in *hiccough*

Social and Cognitive Effects of Literacy

The Ideology of Literacy

Universal literacy seen as tool for cognitive and social development.

> "The illiterate man's thought… remains concrete. He thinks in images and not in concepts… His thought rarely proceeds by induction or deduction. The result is that knowledge acquired in a given situation is hardly ever translated to a different situation to which it might be applied." — 1972 UNESCO report

> "Writing maketh an exact man" -- Francis Bacon

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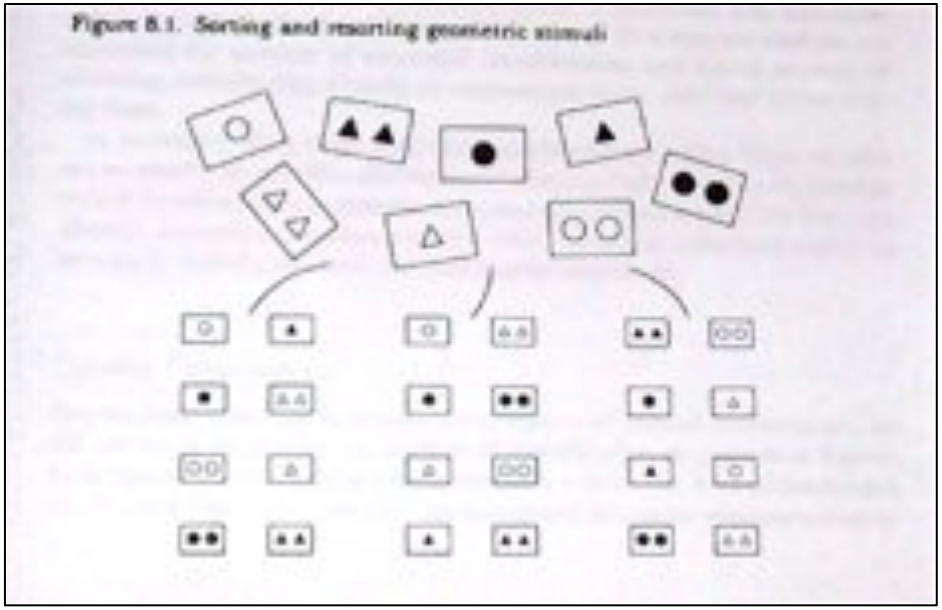
Napoleon -- literate soldiers can march in step.

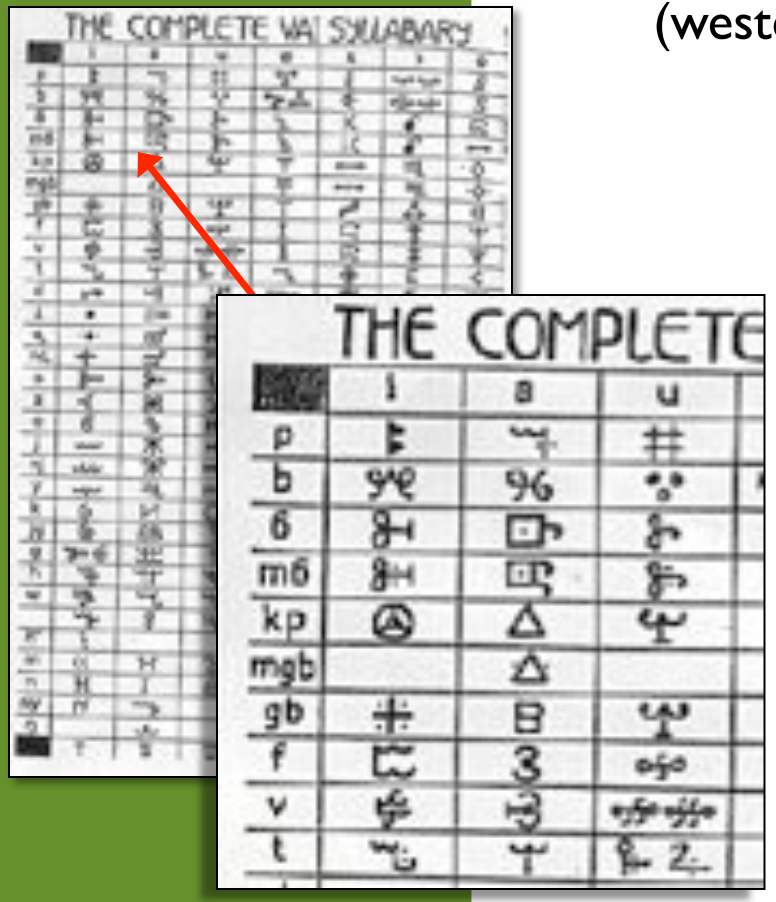
Cognitive Consequences of Literacy

Cognitive differences between literate and illiterate people in devleoped societies. Literate speakers do better on logic problems, tests of abstract thinking (ability to recategorize objects).



But are differences due to literacy, schooling, or independent social differences?

Cognitive Consequences of Literacy



Cf Work by Cole & Scribner among the Vai (western Liberia)

- Many Vai are also literate in Arabic (Koranic schools) and English (state schools)
- Vai-literate adults do no better than illiterates on most cognitive tests (resorting) unless tests were directly related to writing (rebus puzzles)
- But different for English-literate Vai.
- E.g. be careful in ascribing cognitive benefits to "literacy" itself.

The Complexity of Literacy Practice

After Operation Head Start "failures": Research on "early literacy" (Shirley Brice Heath, Yetta Goodman. Etc.)

- Learning the functions of literacy
- Bedtime stories and other rituals of literacy: building expectations, postponing questions, "reading" in pre-literate children: "talking like a book"
- Discourse structure -- topic shifts. Oral precursors in religious services
- How literate parents talk to infants…

Moral: "Literacy" involves a broad range of social practices…

Leapfrogging literacy

Co-existence of writing with other forms of transmission

Cf Somali oral forms (gabay-- alliterative 21 syllable form)

(U) UU UU U UU UU U UU | UU U UU UU U

But written Somali has not replaced the gabay in political discourse.

Leapfrogging Literacy

New forms of transmission can obviate the transition to writing

Readings for 2/5

Manuscript Culture: Required Readings

Plato. 1973 [c. 360 bce]. *Phaedrus & the Seventh & Eighth Letters*. W. Hamilton, trans. Harmondsworth: Penguin.
read "Prelude," pp. 21-26; & "The Inferiority of the Written to the Spoken Word" & "Recapitulation and Conclusion" pp. 95-103.

Trithemius, Johannes. 1974 [1492]. *In Praise of Scribes*. R. Behrendt, ed. Lawrence, KA: Coronado Press. read Chapters I-III, V-VII, XIV.

Note: We are now going back to "primary texts," texts that discuss the changes we are interested in as they happened. As you read these texts, one almost 2500 years old, the other more than 500 years old, ask yourself whether these have anything to tell us about information in the modern world. Be prepared to discuss your reactions in class. (The Trithemius is a "parallel text" with Latin facing English. Only those fluent in Latin need read the Latin pages.)