What follows from writing?

Geoff Nunberg
IS 103
History of Information
Jan 31, 2017
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History of Information

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The emergence of literate societies
Writing & technological determinism
The spread of writing systems
Writing and the Stages of Culture
Assignment:
   Ji Soo K, Pranav A., Rena C., Mustafa S., Grace N.
What follows from writing?
Alphabets vs logographic systems
Cognitive implications of literacy
Leapfrogging literacy?
Writing & Technological Determinism

Teachers say text messages are 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, 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?

Do Texting and “Cyber Slang” Harm Students’ Writing Skills?

Is civilization falling with rise of texting?

By BERNADETTE KINLAW
Posted: December 26, 2016 at 1:50 a.m.
Writing & Technological Determinism

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 redefined. Michael Heim, *Electric Language: A philosophical study of word-processing*, 1987
The influence of the telegraph?

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
The spread of writing systems
Development of Written Symbols

Simplification of sign

Iconic

Semasiographic/ideographic

Proto-writing

Rebus extension

[εlvIs] /εl/ /ε/

logographic

consonantal
syllabic

phonographic writing

"True" (glottographic) Writing
Types of Writing Systems

Logographic: mod. Chinese (logosyllabic), Japanese kanji

Syllabic: Phonecian, Linear B, Cherokee, Korean Hangul (featural), Japanese (hiragana & katakana), Bengali, Gujurati…

Alphabetic: Roman, Cyrillic, Gk, Hebrew, etc,

From Sampson, 1990
The spread of writing systems
The spread of writing systems

The unlabelled scripts of India are: (west) Gurmukhi, Gujarati, Kannada, Malayalam, and (east) Tamil, Telugu, Oriya, Bengali, Burmese.
Emergence of Literate Societies

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.

"The signet ring (impression on the letter) which he delivered is not made like the signet rings of the king, my lord. I have a thousand signet ring(-sealed letter)s of the king, my lord, with me and I have compared it with them - it is not made like the signet ring of the king, my lord!"
Scripts and the functions of writing

Forms of Egyptian writing:
- Hieroglyphic
- Hieratic
- Demotic

Hieratic glyphs and the hieroglyphs they evolved from
Writing and the Stages of Culture

Writing & Determinism

The Stages of Culture

Effects of literacy

Alphabet vs logograph

Cognitive implications

Leapfrogging literacy?
Writing and the Stages of Culture

<table>
<thead>
<tr>
<th>Orality</th>
<th>Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;primitive&quot; societies</td>
<td>&quot;advanced/&quot;developed&quot; societies</td>
</tr>
<tr>
<td>&quot;simple&quot;/&quot;closed&quot;/&quot;savage&quot;</td>
<td>&quot;complex&quot;/&quot;open&quot;/&quot;domesticated&quot;</td>
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<tr>
<td>Anthropology</td>
<td>Sociology</td>
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<tr>
<td>Prehistory</td>
<td>History</td>
</tr>
</tbody>
</table>

(after Jack Goody, *The Domestication of the Savage Mind*)
Modes of Cultural Transmission in Oral Societies

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 a way of interpreting/explaining the present.

Cf Gonja (Ghana): the seven sons of Japka

When does “history” begin? Cf Books of Samuel, Kings…
Consequences of literacy: "What's in a List"

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

List = "locational sorting device."
Emergence of the Alphabet in Greece

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

"Cup of Nestor" ca. 750 BC found near Ischia in Italy
The Phoenicians who came with Cadmus introduced into Greece a number of accomplishments, of which the most important was writing, an art till then, I think, unknown to the Greeks. At first they used the same characters as all the other Phoenicians, but as time went on, and they changed their language, they also changed the shape of their letters.

Herodotus, Histories
From Phoenician to Greek

<table>
<thead>
<tr>
<th>Phoenician</th>
<th>Name</th>
<th>Archaic Greek</th>
<th>Pronunciation</th>
<th>Later Greek</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>א</td>
<td>אлеf</td>
<td>ΔΑΑ</td>
<td>[a], [a:]</td>
<td>Α</td>
<td>α</td>
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<tr>
<td>ב</td>
<td>bêt</td>
<td>בבבב</td>
<td>[b]</td>
<td>Β</td>
<td>β</td>
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<td>ג</td>
<td>gîmel</td>
<td>גגגג</td>
<td>[g]</td>
<td>Γ</td>
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<td>ד</td>
<td>dâlet</td>
<td>דדדד</td>
<td>[d]</td>
<td>Δ</td>
<td>δ</td>
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<tr>
<td>ה</td>
<td>hê</td>
<td>ḫ.xpath</td>
<td>[ʁ]</td>
<td>Ε</td>
<td>ε</td>
</tr>
<tr>
<td>ו</td>
<td>wâw</td>
<td>וףףף</td>
<td>[w]</td>
<td>(obsolete)</td>
<td>wau (digamma)</td>
</tr>
<tr>
<td>ז</td>
<td>zayin</td>
<td>זזזז</td>
<td>[dʒ], then [zd]</td>
<td>Ζ</td>
<td>ζ</td>
</tr>
<tr>
<td>ח</td>
<td>hêt</td>
<td>חחחח</td>
<td>[h], then [ʁ]</td>
<td>Χ</td>
<td>Χ</td>
</tr>
<tr>
<td>ד</td>
<td>têt</td>
<td>דדדד</td>
<td>[tʰ]</td>
<td>Θ</td>
<td>θ</td>
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<tr>
<td>י</td>
<td>yôd</td>
<td>יייליל</td>
<td>[i], [iː]</td>
<td>I</td>
<td>i</td>
</tr>
<tr>
<td>ק</td>
<td>kaf</td>
<td>קקקק</td>
<td>[k]</td>
<td>K</td>
<td>κ</td>
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<tr>
<td>ל</td>
<td>lâmêd</td>
<td>לâlâl</td>
<td>[l]</td>
<td>Λ</td>
<td>λ</td>
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<td>mem</td>
<td>ממהמ</td>
<td>[m]</td>
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<td>μ</td>
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<tr>
<td>נ</td>
<td>nûn</td>
<td>ננננ</td>
<td>[n]</td>
<td>N</td>
<td>ν</td>
</tr>
<tr>
<td>ס</td>
<td>sâmêk</td>
<td>סססס</td>
<td>[ks]</td>
<td>Ξ</td>
<td>ξ</td>
</tr>
<tr>
<td>צ</td>
<td>tâyin</td>
<td>צצצצ</td>
<td>[tː]</td>
<td>O</td>
<td>o</td>
</tr>
</tbody>
</table>
Are vowel letters a big deal?

What every "Wheel of Fortune" viewer knows:

_о_e_ _ a_e _e_ _ i _ _o_ _a_ _ i_ e _
_a_ _o_ _ o_a_ _

V_w_l_ _r_ l_ss _nf_rm_ _v_ th_n
c_ns_n_nts
Changes attributed to Greek literacy

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"
But note Panini's grammar of Sanskrit -- 6th c. BC
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.
Havelock claims that the Greeks introducing the alphabet meant that they "invented literacy and the literate basis of modern thought" [55]. By going as far as to say that the invention of the alphabet is what divided the cultures of the world from being pre-literary to literate, this is clearly a very deterministic view of technology that McLuhan would agree with. Havelock points out that before the alphabet, the kind of things that could be preserved was very limited since it had to depend on passing the information down orally, and in order to make that easier, people had to utilize methods such as rhythm and mnemonics. But after the alphabet and thus the possibility of a visual record "abolished the need for memorization," the "mental energies" that was conserved "contributed to an immense expansion of knowledge available to the human mind," [55] since people could now record novel and unfamiliar statements which were open to discussion and feedback from others, spreading its influence.
[McLuhan would agree] with the last sentence of the claim. He would believe it inevitable that the alphabet will have relation, or contribution, to the other areas of the culture. McLuhan would further agree with Havelock when he states “language increasingly available in visual documented form . . . [will cause] the winged word . . . [to become] an artifact” (Havelock 9). This concept of the obliteration of the verbal method of transporting information due to the increasing usage of a written method continues to follow McLuhan’s deterministic viewpoints on technology – when a new technology becomes popular, it will be globally adopted and preceding methods will disappear.
Williams viewed technology as symptomatic of societal necessities and values, rather than determining of cultural change. When Havelock writes, “the introduction of the Greek letters into inscription... was to alter the character of human culture, placing a gulf between all alphabetic societies and their precursors,” Williams would likely point out that the introduction did not immediately nor by itself alter humanity so greatly. Rather, this shift in culture would have been a slowly occurring process that brought about the alphabet as a catalyst. Havelock even says in his paper that “for a long time, it was used primarily for recording and perpetuation what had first been composed orally” (95). He states that the Greeks, after inventing this new technology for information storage, continued to use it for several centuries as a tool to transcribe orally transmitted poems and tales. The transition away from verse took many centuries, and did not occur immediately as would be inferred from his original statement.
Raymond Williams would be critical of Havelock’s claim that the alphabet was a necessary condition for modern science. Williams’ argument could be supported by the degree to which alphabetic language adoption and literacy caused changes in scientific practices in various societies.

Gough shows us that this causal effect was minimal. She states that the failure to adopt modern science in early China was due mainly to weak overseas commercial activities and a strict “separation of functions between mental and practical workers” [51]. Similarly in India, the intellectual preconceptions of the scholarly elite (who decided what science was to be carried out and when) restricted the scientific progress more so than any language, writing, or literacy reasons [51]. It was these social and cultural constructs that inhibited the shift to modern science in China and India, two highly scientifically sophisticated societies.

Havelock actually understands this social impact as well, noting that the alphabet’s efficacy in spreading literacy was inhibited by the importance Greeks placed on the idea of “musical” education (which included poetry, instruments, and dance). He writes, “Any indoctrination in letters...was treated as strictly ancillary to oral competence” [94].
One element of Havelock's claim asserts that the invention of the alphabet by the Greeks led to widespread literacy. He uses the metaphor of "the eye slowly invaded the ear" [90] to suggest that the alphabet propelled society to move towards literacy and away from oral tradition. This shift also allowed people to separate themselves from their creation, while in orality, "the speaker and his speech remained one" [98]. Havelock's claim strongly resonates that of McLuhan in that they both treat inventions such as the alphabet and the press as extensions of man's "physical and nervous systems" [90]. In Havelock's version of this nervous system, the eye is an extension of the ear. McLuhan argues that speech "enables the intellect to detach itself from the vastly wider reality" [79], a strikingly similar claim to Havelock's argument about man's separation from his composition. ... however, Gough ... says it's "hard to disentangle the implications of literacy from those of other techniques... found in advanced societies" [55]. Her viewpoint resonates Williams' skepticism about technology as the only cause of social movement...
Does the alphabet drive societal development?

Cf., Geoffreys Lloyd on development of Greek and Chinese science

"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"
"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)
alphabet vs logographic systems

Writing & Determinism
The Stages of Culture
Effects of literacy

**Alphabet vs logographic**

Cognitive implications of literacy
Leapfrogging literacy?
Ultimate triumph of the alphabet?

“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 input, texting, etc.)
- Emerging digraphia/multilingualism
- Spread of Mandarin
Alphabet as transitional stage

Zhou Youguang, Architect Of A Bridge Between Languages, Dies At 111

January 14, 2017 - 10:52 AM ET

COLIN Dwyer
Contrasting alphabetic and logographic systems

Virtues of 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 ô “oh,” os “bone,” haut “high,” au “to the,” eau “water” etc..

(“Les os aux eaux en haut”=“The bones at the waters above”)

How "phonemic" is English?

famous: uh  should: U
journey: er   you: oo
loud: ow     (Ouija: w_)
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
Social and Cognitive Effects of Literacy

- Writing & Determinism
- The Stages of Culture
- Effects of literacy
- Alphabet vs logographic
- Cognitive effects
- Leapfrogging literacy?
The Ideology of Literacy

Universal literacy 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
Cognitive Consequences of Literacy

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.
Leapfrogging literacy
Co-existence of writing with other forms of transmission

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

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

New forms of transmission can obviate the transition to writing
Leapfrogging Literacy

Writing & Determinism
The Stages of Culture
Social Effects of literacy
Alphabet vs logographic
Cognitive implications
Leapfrogging literacy?

Gabaygii la yaabka lahaa ee Mooryaan Gareey.flv

XILDHBAN

55,296
Readings for 2/4

Required Readings

Read: "Prelude," pp. 21-26; & "The Inferiority of the Written to the Spoken Word" & "Recapitulation and Conclusion" pp. 95-103.
Source: Course reader

Read Chapters I-III, V-VII, XIV.
Source: Course reader
Although print is often credited with bringing about an "information revolution" (a topic we will discuss next week), other, earlier technologies have also been seen as transformational.

**Note:** We are now going back to "primary texts," texts by people who lived through the changes we are discussing. As you read these texts, one almost 2500 years old (from the great philosopher, Socrates), the other more than 500 years old, ask yourself whether these have anything to tell us about information in the modern world and the changes we are living through today. 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.)