

# Literacy and Consequences

History of Information, July 14, 2010

# Recap

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- ▶ Tech Determinism
- ▶ Writing Systems



# Many “Literacies”

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- ▶ Nominal Literacy
- ▶ Computer Literacy
- ▶ Scientific Literacy
- ▶ Mathematical Literacy
- ▶ “Functional” Literacy
- ▶ Political Literacy
- ▶ Digital Literacy
- ▶ Cultural Literacy
- ▶ Health Literacy
- ▶ Physical Literacy
- ▶ Media Literacy
- ▶ Twitter Literacy (Howard Rheingold)
- ▶ “Literacy Literacy”



## Literacy Crisis?

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- ▶ That's the drift of screen reading. Yes, it's a kind of literacy, but it breaks down in the face of a dense argument, a Modernist poem, a long political tract, and other texts that require steady focus and linear attention — in a word, slow reading. Fast scanning doesn't foster flexible minds that can adapt to all kinds of texts, and it doesn't translate into academic reading. If it did, then in a 2006 Chronicle survey of college professors, fully 41 percent wouldn't have labeled students "not well prepared" in reading (48 percent rated them "somewhat well prepared").

-Bauerlein, Online Literacy is a Lesser Kind, Chronicle of Higher Education, 2008

# The Origins of the Alphabet in Greece

- ▶ First “true” alphabet emerges ca 750 B.C.
  - ▶ “Flame of Literacy” spread along Phoenician trade routes



# The Greeks' Innovation

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- ▶ Revising Phoenician script by providing symbols for individual consonants and vowels in isolation



# A Work in Progress

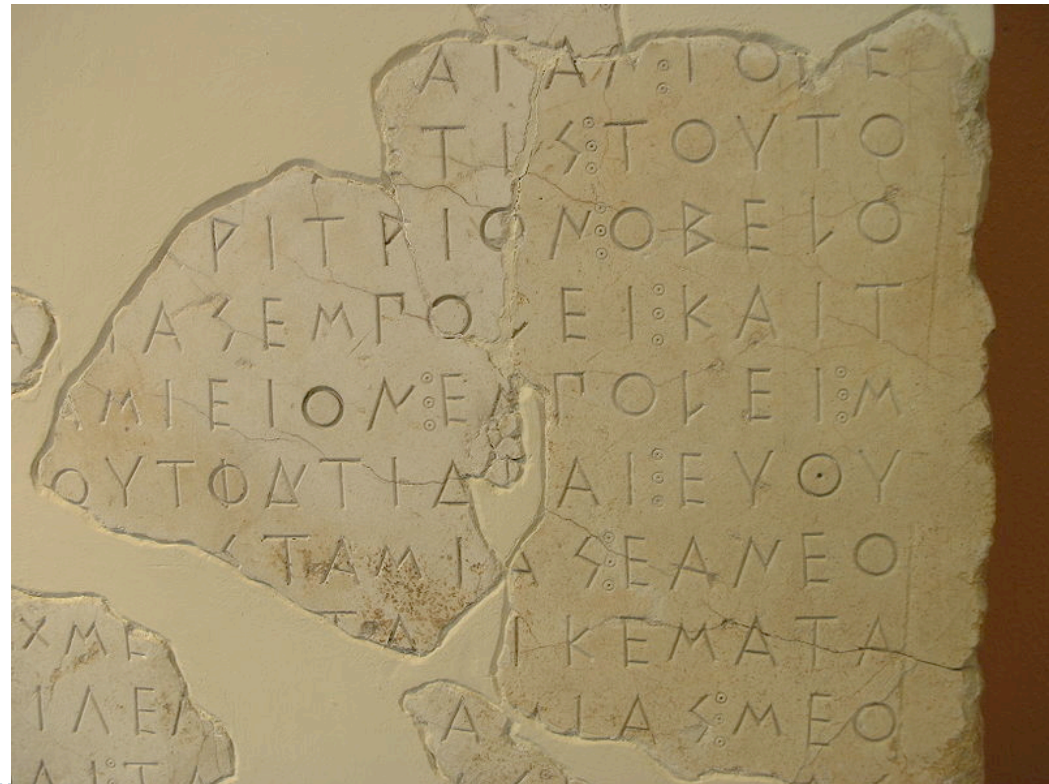
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## ▶ Stoichedon

- ▶ Horizontal/Vertical alignment – no spaces, punctuation
- ▶ Sacred law concerning temple worship in Acropolis
- ▶ 4<sup>th</sup>-5<sup>th</sup> C BC

## ▶ Boustrophedon

- ▶ textgoesoneway
- ▶ niagakcabnehtdna
- ▶ justlikeanoxturning
- ▶ hguolpahtiwdleifa



# Punctuation (An Aside)

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- ▶ Orthographic elements such as word-spacing, punctuation, paragraphing, etc. occur later
  - ▶ woman without her man is nothing
  - ▶ to be or not to be that is the question
  - ▶ you don't know jack





# Punctuation (An Aside)

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- ▶ Orthographic elements such as word-spacing, punctuation, paragraphing, etc. occur later
  - ▶ woman: without her, man is nothing!
  - ▶ woman, without her man, is nothing.
  - ▶ To be, or not to be: that is the question...
  - ▶ To be or not. To be, that is. The question?
  - ▶ You don't know, Jack.
  - ▶ You don't know Jack?



# Emergence of Literate Societies

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- ▶ 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 Alphabetic Societies

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- ▶ 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)



## Nunberg's "Alphabetolatry"\*

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- ▶ The premise that the technology of communication controls the content of what is communicated has been popularized in connection with modern radio, cinema, and television. I am applying it in a more radical fashion to a shift in the character of the human consciousness which occurred in ancient Greece, and which we inherit. Briefly I am arguing that the history of the human mind, as of the human language, falls into roughly two epochs, the pre-alphabetic and the post-alphabetic.

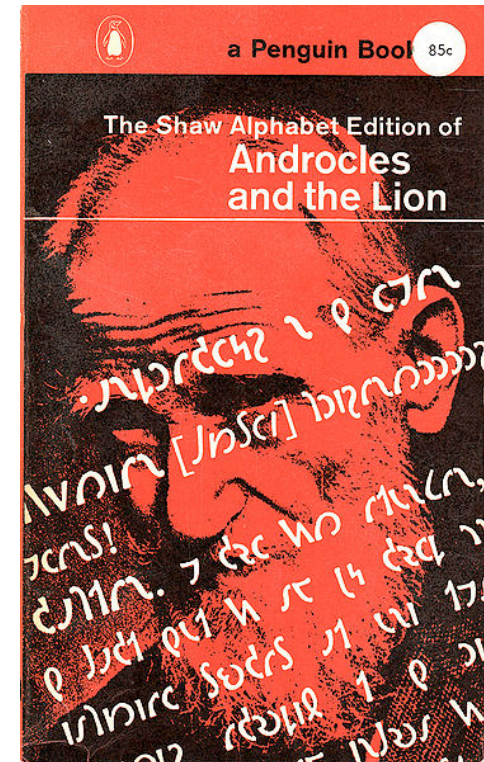
-Eric Havelock

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- ▶ \*Alphabet + Idolatry = Alphabetolatry

# Alphabetic vs. Logographic systems

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- ▶ Virtues of "pure" or "phonetic" alphabetic writing:
  - ▶ Ease of learning
  - ▶ Typographic simplicity
  - ▶ Ease of processing



# Alphabetic vs. Logographic systems

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- ▶ Virtues of logographic systems
  - ▶ Doesn't privilege one dialect.
  - ▶ "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*: er
  - ▶ *you*: oo
  - ▶ *loud*: ow
  
  - ▶ *through* –oo
  - ▶ *bough* – ow
  - ▶ *though* – oh
  - ▶ *cough* – awf
  - ▶ *thought* – aw
  - ▶ *tough* – uhf
  - ▶ And...



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  - ▶ *tough* – uhf
  - ▶ And...*hiccough* -- up



# Literacy and Ideology

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- ▶ Universal literacy seen as tool for cognitive and social development
- ▶ **“Literacy is a human right, a tool of personal empowerment and a means for social and human development. Educational opportunities depend on literacy.**

**Literacy is at the heart of basic education for all, and essential for eradicating poverty, reducing child mortality, curbing population growth, achieving gender equality and ensuring sustainable development, peace and democracy.** There are good reasons why literacy is at the core of Education for All (EFA).

**A good quality basic education equips pupils with literacy skills for life and further learning; literate parents are more likely to send their children to school; literate people are better able to access continuing educational opportunities; and literate societies are better geared to meet pressing development.”**

**-UNESCO**



# Consequences of Literacy

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- ▶ Social
- ▶ Cultural
- ▶ Cognitive



# Social/Cultural Consequences

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- ▶ The invention of history (“liberates from the tyranny of the present”)
- ▶ The elimination of “structural amnesia” and “homeostasis”
- ▶ Ability to challenge tradition favoring inconsistency (intellectual skepticism)
- ▶ Spread of religion
- ▶ The separation of truth from myth
- ▶ Democracy and new forms of civic and political participation
- ▶ Ability to govern and organize at a greater range
- ▶ Development of modern science



## More Social/Cultural Consequences

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- ▶ Inability to participate “fully in cultural tradition”
- ▶ Increase in social stratification through differentiation
- ▶ Separation of public and private?
- ▶ The whole idea of individuality?
- ▶ [So how do these reconcile with arguments about democracy?]



# Cognitive/Psychological Consequences

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- ▶ Logical thought and deduction
- ▶ Abstract thought and categorization
- ▶ Individual thought (as opposed to collective thought)
- ▶ Loss of memory (?)
- ▶ Objectivity and rationality
- ▶ “Writing restructures consciousness” (Ong, Walter. 1982. Orality and Literacy)



## Historical Comparision with China and India

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- ▶ What assertions does Gough (1968) make about literacy in China and India?



## Historical Comparision with China and India

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- ▶ Distribution of literacy a result of social stratification rather than the reverse
- ▶ In China, alphabet not required for widespread literacy
- ▶ Strong oral tradition (as in ancient Greece)
- ▶ Emphasis on the mythical/mystical



# Reassessing Cognitive Consequences

## ▶ Scribner and Cole

- ▶ Field study of the Vai, a traditional African society
  - ▶ Acquired literacy **without** formal schooling
  - ▶ Literate in English, Arabic, and Vai
  - ▶ Writing used for a wide variety of functions
  - ▶ “uses of writing for institutional purposes are fully within the grasp of **uneducated, but literate**, Vai people.”
- ▶ Found no evidence of “general” consequences of literacy

THE COMPLETE VAI SYLLABARY

	i	a	u	e	ɛ	ɔ	o
p	⦿	⦿	⦿	⦿	⦿	⦿	⦿
b	⦿	⦿	⦿	⦿	⦿	⦿	⦿
ɓ	⦿	⦿	⦿	⦿	⦿	⦿	⦿
mɓ	⦿	⦿	⦿	⦿	⦿	⦿	⦿
kp	⦿	⦿	⦿	⦿	⦿	⦿	⦿
mgb	⦿	⦿	⦿	⦿	⦿	⦿	⦿
gb	⦿	⦿	⦿	⦿	⦿	⦿	⦿
f	⦿	⦿	⦿	⦿	⦿	⦿	⦿
v	⦿	⦿	⦿	⦿	⦿	⦿	⦿
t	⦿	⦿	⦿	⦿	⦿	⦿	⦿
d	⦿	⦿	⦿	⦿	⦿	⦿	⦿
ɗ	⦿	⦿	⦿	⦿	⦿	⦿	⦿
ɗ	⦿	⦿	⦿	⦿	⦿	⦿	⦿
nd	⦿	⦿	⦿	⦿	⦿	⦿	⦿
s	⦿	⦿	⦿	⦿	⦿	⦿	⦿
z	⦿	⦿	⦿	⦿	⦿	⦿	⦿
o	⦿	⦿	⦿	⦿	⦿	⦿	⦿
j	⦿	⦿	⦿	⦿	⦿	⦿	⦿
nj	⦿	⦿	⦿	⦿	⦿	⦿	⦿
y	⦿	⦿	⦿	⦿	⦿	⦿	⦿
k	⦿	⦿	⦿	⦿	⦿	⦿	⦿
jg	⦿	⦿	⦿	⦿	⦿	⦿	⦿
g	⦿	⦿	⦿	⦿	⦿	⦿	⦿
h	⦿	⦿	⦿	⦿	⦿	⦿	⦿
w	⦿	⦿	⦿	⦿	⦿	⦿	⦿
ɸ	⦿	⦿	⦿	⦿	⦿	⦿	⦿
m	⦿	⦿	⦿	⦿	⦿	⦿	⦿
n	⦿	⦿	⦿	⦿	⦿	⦿	⦿
ny	⦿	⦿	⦿	⦿	⦿	⦿	⦿
ɲ	⦿	⦿	⦿	⦿	⦿	⦿	⦿

## Getting It Wrong Again?

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- ▶ One Laptop Per Child
- ▶ Texas Education Agency's Technology Immersion Pilot
- ▶ California Schools E-Rate program
- ▶ NY State school district laptop program





# No Crisis Here!

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- ▶ "I think we're in the midst of a literacy revolution the likes of which we haven't seen since Greek civilization.."

-Andrea Lunsford, Stanford Study of Writing (Src: <http://www.shannoncarter-blog.org/wp-content/uploads/2009/08/Clive-Thompson-on-the-New-Literacy.pdf>)

- ▶ "Facility with text language is associated with higher achievement in school literacy measures."
  - Plester, Wood, and Bell, Txt msg n school literacy: does texting and knowledge of text abbreviations adversely affect children's literacy attainment?

