print culture
Ken Olsen, Who Built DEC Into a Power, Dies at 84

By GLENN RIFKIN
Published: February 7, 2011

Ken Olsen, who helped reshape the computer industry as a founder of the Digital Equipment Corporation, at one time the world's second-largest computer company, died on Sunday. He was 84.

His family announced the death but declined to provide further details. He had recently lived with a daughter in Indiana and had been a longtime resident of Lincoln, Mass.

Mr. Olsen, who was proclaimed “America’s most successful entrepreneur” by Fortune magazine in 1986, built Digital on $70,000 in seed money, founding it with a partner in 1957 in the small Boston suburb of Maynard, Mass. With Mr. Olsen as its chief executive, it grew to employ more than 120,000 people at operations in more than 95 countries.

Lena Nyman, Star of ‘I Am Curious’ Films, Is Dead at 66

By DENNIS HEVESI
Published: February 5, 2011

Lena Nyman, the Swedish actress whose performance in the sexually explicit movie “I Am Curious (Yellow)” raised the hackles of censors in the 1960s and helped turn the film into a box office bonanza, died on Friday in Stockholm. She was 66.

She died after a long illness, Ms. Nyman’s manager, Mats Nilemar, told The Associated Press.

Ms. Nyman went on to a distinguished career after “I Am Curious.” In all, she had roles in more than 50 Swedish films and television shows, notably Ingmar Bergman’s “Autumn Sonata” in 1978, in which she played the mentally impaired sister to Liv Ullmann’s accomplished pianist.

But it was in “I Am Curious” that she made perhaps her most indelible mark on the film Ms. Nyman portrayed an intensely serious young woman, also named Lena, who wanders Stockholm as an amateur reporter, raising questions about the mores that seem to her to have calcified Swedish life. She asks people if really is a classless society and badgers union officials about why the labor movement is so conservative.
something happened

Johannes Gutenberg
138?-1468

Tuesday, March 15, 2011
big deal?

not since

"Not since Gutenberg invented the modern printing press more than 500 years ago, making books and scientific tomes affordable and widely available to the masses, has any new invention empowered individuals or transformed access to information as profoundly as Google."
"Printing, gunpowder and the compass ... whence have followed innumerable changes, in so much that no empire, no sect, no star seems to have exerted greater power and influence in human affairs than these mechanical discoveries."

Francis Bacon, *Novum Organum*, 1620

"He who first shortened the labor of copyists by device of movable types was disbanding hired armies, and cashiering most kings and senates, and creating a whole new democratic world: he had invented the art of printing."

Thomas Carlyle, *Sartor Resartus*, 1833
Eisenstein's claim

"The impact of printing, experienced first by literate groups in early modern Europe, changed the character of the Italian Renaissance and ought to be considered among the causes of both the Protestant Reformation and the rise of modern science."
big deal?

not since

"Not since Gutenberg invented the modern printing press more than 500 years ago, making books and scientific tomes affordable and widely available to the masses, has any new invention empowered individuals or transformed access to information as profoundly as Google."
where we're going

Eisenstein:
readers respond

assessing a revolution:
what happened, what came before, what came after, who was involved what happened elsewhere what was necessary, what sufficient, what incidental

what was overestimated?
agent of change

Eisenstein

"I first became concerned with the topic of this book in the early 1960s after reading [a] ... lament over 'the loss of mankind's memory' ... It seemed unhistorical to equate the fate of the 'common culture of Bible reading' with that of all of Western civilization when the former was so much more recent--being the by-product of an invention which was only five-hundred year's old ... Gutenberg"
McLuhan is the message

"I ran across a copy of Marshall McLuhan's *The Gutenberg Galaxy* ... He pronounced ... the age of Gutenberg to be at an end ... stimulated my curiosity ... about the specific historical consequences of the fifteenth-century communications shift.

"McLuhan raised a number of questions about the actual effects of the advent of printing ..."
McLuhan (1911-1980)

The Gutenberg Galaxy: the making of typographic man, 1962

"Printing ... created the public ... What we have called 'nations' ... did not and could not, precede the advent of Gutenberg technology ... isolation of the visual faculty from other senses ..."
"Electric circuitry has overthrown the regime of 'time' and 'space' and pours upon us instantly and continuously concerns of all other men. It has reconstituted dialogue on a global scale. Its message is Total Change, ending psychic, social, economic, and political parochialism. ... Ours is a brand-new world of allatonceness. 'Time' has ceased, 'space' has vanished. We now live in a global village ... a simultaneous happening."

Marshall McLuhan et al., *Medium is the Massage*, 1967
Eisenstein's claim

"The impact of printing, experienced first by literate groups in early modern Europe, changed the character of the Italian Renaissance and ought to be considered among the causes of both the Protestant Reformation and the rise of modern science."

"... a major transformation ... did occur ... has not ceased."
your thoughts

assignment notes

if there are 2 books on the list, better refer to both
think of referring back to earlier readings

200-250 words

citations and page numbers for sources

save as .txt or .rtf if using Word

proof read

"Einstein argues ..."
issues
determinist
hard v soft/moderate/partial/balanced/lax/not
right or wrong?
all (Reformation, science, Renaissance) or nothing
what else mattered?
capitalistic drives
print shop
what's missing?
# my technology right or wrong

<table>
<thead>
<tr>
<th>Hard Right</th>
<th>Hard Wrong</th>
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<tbody>
<tr>
<td>Andy Horng</td>
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<td>Jonathan Ko</td>
<td>Ariane Lange</td>
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doubts

soft, lax determinism
Allison Fenner
Ashlyn Kong

necessary but not sufficient
Eduardo Quintanilla
Gavin Rhynne

something missing
T.J. Bonner
Leyla Holt
where we're going

assessing a revolution:
what happened, what came before,
what came after, who was involved
what happened elsewhere
what was necessary, what sufficient, what
incidental

what was overestimated?
what happened

technologies

woodblock printing
printing press
moveable type
technology of type

punch & matrix

press & chase
who was involved?

**Guttenberg:**
metalworker from Mainz

1438: exile, Strasbourg
partners: Riffe, Dritzehn, Helman

1438, December: Dritzehn dies
"4 pieces to be destroyed"; carpentry work

1439: Dritzehn's heirs sue

1450: back in Mainz

**creditor** Johannes Fust

**employee** Peter Schöffer

**ally** Cardinal Nicholas of Cusa
complete works

1454: Cyprus Indulgence

1455: 42-line bible
the Cardinal's connections?

1455: Fust sues, wins
new partnership of Fust & Schöffer
Mainz psalter
spread of print

1455: Mainz
1465: Subiaco, Italy
1476: London
1480: Budapest, Krakow, Prague, Brussels
what came after

renaissance

reformation

scientific revolution
"there is need to distinguish between initial and delayed effects"

questions of timing?

**scientific revolution**

Gutenberg, d. 1468

Bacon, 1561-1626

Galileo, 1564-1642

Descartes, 1596-1650

Newton, 1642-1727

coming up:

science & medicine

Tuesday, March 15, 2011
pseudo-science

chapbooks and almanacs

"for three-and-a-half centuries, the Almanack has been the most popular book in the English language"

1492-1600, probably 600 published


400,000 a year

William St Clair, *The Reading Nation*, 2005

Mother Shipton

Nostradamus
It is well known that during the first ten years of the History of California as a Gold Region, the mortality of the mines was frightful ... At length Hostetter's Stomach Bitters, which had already become celebrated in all the Eastern States, found their way to California ... It sustained the vigor of the frame ...
progress?

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where we're going

Eisenstein: readers respond

assessing a revolution: what happened, what came before, what came after, who was involved what happened elsewhere what was necessary, what sufficient, what incidental

what was overestimated?
what came before?

changing book

"The late medieval book differs more from its early medieval predecessors than it does from the printed book."

--Parkes, "Influence" 1976

| gloss; running titles; subdivisions: books, chapters; analytical tables of contents; chapter headings; cross references; alphabetical order; page numbers, indexes | 31 | Tuesday, March 15, 2011 | Hofll-PC 31 |
compare

alphabetical indexing

ms: "Sacra Parallela of John Damascene [8th century] ... an alphabetic subject index to the Bible and the Fathers."
Witty, "Early Indexing"

print: "The first known dated [printed] index appeared in 1468 in Speculum vitae, a moral treatise printed ... in Rome."
Bell, Indexers and Indexes
"From about 1300 very many scribes, librarians, and book owners provided their volumes with leaf numbering ... [by the fifteenth century] the numbers were overwhelming ..."

--Smith, "Printed Foliation"
the challenge of new technologies

1471: first printed folios

--Serna, *Des Signatures et des Chiffres*, 1798

"of 4194 incunables ... only 10.3 percent use printed foliation, none use page numbers ..."

--Smith, "Printed Foliation"

**incunable**: printed book from before 1500

**foliation**: providing leaf numbers

*Missale Constantiense*
"pagination ... became common only in the second quarter of the 16th century"

--Fevre & Martin, *Coming of the Book*

"After examining about 80,000 Dutch books from the 16th and 17th century I think that printers did not care for page numbers ... 60-70% contain mistakes in the page numbers"

[Some printed books with 50% of the page numbers wrong]

Verkruijsse, "Wacht u voor de bladwachter!"
where we're going

Eisenstein: readers respond

assessing a revolution: what happened, what came before, what came after, who was involved
what happened elsewhere what was necessary, what sufficient, what incidental

what was overestimated?
what happened elsewhere?
what happened elsewhere?

"In order to test the hypotheses put forward by Goody and Watt it is necessary to have accounts of the uses of literacy in a wide range of societies..... I shall discuss .. in the light of comparisons with India and China"

--Gough, "Implications of Literacy", 1968

"In a different context, the same technology might have been used for different ends (as was the case in Asia)."
"[E]ither the Germanes borrowed this Invention from the Chineses, or at leastwise the Chineses had the practise & vse of it long before them."
--George Hakewill, *An Apology of the Power*, 1627

"Whether the Germans first borrowed this Invention from the Chineses, or whether amongst the Germans (who undoubtedly lay best claim to it) Iohn Gutenberg the Knight of Mentz, or Iohn Fust a Moguntine, was the first Inventor thereof, it matters not."

Robert Heath, *Paradoxical Assertions*, 1659
printing in china

c. 200 BC: the use of seals

\[ yin = \text{seal and print} \]

175 AD: printing of Confucian classics from stone carvings

868: earliest surviving Chinese printing

972-83: Tripitaka, 5,048 volumes, 130,000
furthermore ...

1041: Pi Sheng clay moveable type

"in the Northern Song in the eleventh century ... there were some thirty printing centers ... and some two hundred in the Southern Song (twelfth century)"

--Lucille Chia, 
Printing for Profit 2002
Japan

Empress Shotoku, and her charms

770: xylographic printing

? 1,000,000 copies
Korea: undetermined

8th century: xylography

918-1392: Koryo Dynasty
three methods of publishing

transcription: Royal library; practice

xylography: Buddhist temples

typography: civil service

1087: Tripitaka Koreana (xylography)
Korean printing

"demand side"

949-975: King Kwangjong
Guagou competitive civil service exams

"supply side"

1231: Mongol invasion
destruction of archives, burning of wooden type
Korean printing

1241: Yi Munsun Chip
(metal moveable type)

1377: Jijki

1392: Kyosugam (dept. of publishing)

1403: Jujaso (type foundry)

1446: Hangul alphabet and typography
and elsewhere

enigmatic hints

"The first attempts at Hebrew printing may well have been made at Avignon, where on 10 March 1446 a certain Procope undertook to make for a former associate 27 square Hebrew letters engraved on iron."

-- Colette Sirat, Hebrew Manuscripts of the Middle Ages, 2002
"[Theodore] De Vinne, in his book [The Invention of Printing, 1878] writes, 'The inventor of printing did not invent paper .. did not originate engraving on wood. He was not the first to print upon paper, he was not the first to make printed books, it is not certain that he made the first press, it is not probable that he was the first to think of or make movable type. What he did was to invent the type mold"
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"... it was the type mold that the Koreans developed."

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"... it was the type mold that the Koreans developed."


see also Paul Needham and Blaise Aguera y Arcas, "What did Gutenberg Invent?"
"Europe reckons the date of the invention of printing from the time when typography was invented, and considers block printing as merely an important step in preparation. The far East reckons the invention of printing from the time when block printing began and considers movable type as rather an unimportant later addition."

Carter, The Invention of Printing in China
"How the Great Kaan causeth the bark of trees, made into something like paper, to pass for money over all his country."

"All the grand Kaan's subjects receive this paper money without hesitation because wherever their business may call them, they can dispose of it again in the purchase of merchandise they have occasion for."

--Marco Polo
world of print

printing

China, 7th century
Korea, 8th century
Japan, 8th century
Western Europe, 14th century
Jews, 15th century
India, 18th century
Islam, 19th century
formal changes

scroll to codex

Christians, 2d century
Islam, 8-9th century
Jews, 8-9th century
Korea, 12th century
China, 13th century
Japan, 18th century

printing

China, 7th century
Korea, 8th century
Japan, 8th century
Western Europe, 14th century
Jews, 15th century
India, 18th century
Islam, 19th century
formal changes

parchment to paper
China, 200 BCE
Korea, 3rd century
India, 5th century
Japan, early 7th century
Islam, 8th century
Jews, 10th century
Byzantium, 9th century
Western Europe, 11th century

scroll to codex
Christians, 2nd century
Islam, 8th-9th century
Jews, 8th-9th century
Korea, 12th century
China, 13th century
Japan, 18th century

printing
China, 7th century
Korea, 8th century
Japan, 8th century
Western Europe, 14th century
Jews, 15th century
India, 18th century
Islam, 19th century

Tuesday, March 15, 2011
The word "magazine" is derived from the Arabic word "makhazin," meaning storehouse. Since Daniel Defoe published the world's first English magazine back in 1704, millions of magazines catering to nearly every imaginable taste have been created and consumed, passed from person to person in cafes, barber shops, libraries, and homes around the world. If you're wondering what cars people drove in the eighties or what was in fashion thirty years ago, there's a good chance that you'll find that answer in a magazine. Yet few magazine archives are currently available online.
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why?

Theuth
Moses
Lord Kulaba
Ts'ai Lun
Daniel Defoe
Morse
Edison
Bell
Marconi
Bill Gates
not by books alone

the chain of custody

isnad or chain of transmission

"documents alone, without a line of persons possessed of both knowledge and righteousness ... are useless. ... a proliferation of biographical dictionaries ... Ibn Sa'd, Great Book of Classes .... Genalogies of the Nobility ...."

--Graham, "Traditionalism in Islam," 1993
where we're going

Eisenstein: readers respond

assessing a revolution: what happened, what came before, what came after, who was involved what happened elsewhere what was necessary, what sufficient, what incidental

what was overestimated?
overestimated aspects of print culture?

the reliability of print vs the search for copy

"Book-sellers follow their owne judgment in printing the antient Authors according to such Text as they found extant ... Errors repeate & multiply in every Edition".

-- John Evelyn, 1666
printing problems

"[Tycho] built his own printing house and paper mill: he discovered that he could not otherwise obtain acceptable materials and workmanship. ... the English astronomer royal ... dismissed the posthumous printing of [Tycho's] star tables as quite simply a 'fraud.'"

problems of authenticity

piracy and plagiarism

"Luther's German translation of scripture was actually beaten into print by its first piracy"

--Johns, Nature of the Book

church & government responses

censorship

copyright

sedition acts
problems of fixity

"[Shakespeare's] first folio [1623] ... boasted some six hundred different typefaces along with nonuniform spelling and punctuation, erratic divisions and arrangements, mispaging, and irregular proofreading. No two copies were identical."

--Johns, *Nature of the Book*
authority questions again

"If even Tycho Brahe found it so difficult to maintain his printed materials as ... immutable, what hope is there of explaining the achievements of less powerful figures...? If we are to understand how and why printed texts became trustworthy ... we need to appreciate all of them, in something approaching their full 'woof'"

--Johns, *Nature of the Book*
just ahead

10 Feb: Emergence of the public sphere
Required reading: