introduction

History of Information 2017
info 103

Profs. Paul Duguid & Geoffrey Nunberg
Jan 17, 2017
where we're going

why HofI?

where we're going

practical details

getting it wrong

technological challenges

why HofI?
our defining characterization?

relative frequency, Google Books, 1920-200
... or our "society"

relative frequency, Google Books, 1920-200
... by looking at technology

The monks around me besieged me so with eager questions: What is this curious thing? What is it for?

I put my information in the simplest form I could: “It is a public journal; I will explain what that is, another time. It is not cloth, it is made of paper; some time I will explain what paper is. The lines on it are reading matter; and not written by hand, but printed; by and by I will explain what printing is. A thousand of these sheets have been made, all exactly like this, in every minute detail—they can’t be told apart.” Then they all broke out with exclamations of surprise and admiration:

“A thousand! Verily a mighty work—a year’s work for many men.”

“No—merely a day’s work for a man and a boy.” They crossed themselves.

“Ah—h—a miracle, a wonder! Dark work of enchantment.”

Mark Twain, A Connecticut Yankee in King Arthur's Court, 1889
but where does info come in?

"I put my information in the simplest form I could."

"Printing" Encyclopedia Britannica, 1911
distinguishing features?

"The period beginning around 1970 and noted for the abundant publication, consumption, and manipulation of information, especially by computers" —American Heritage Dictionary, 4th ed. 2000

"(also known as the Computer age, Digital Age, or New Media Age) is a period ... characterized by the shift from traditional industry ... to an economy based on information computerization ... associated with the Digital Revolution." —Wikipedia
implicit assumptions

break from the past
never before …

determinative role of technology
"listen to the technology"
Kevin Kelly, What Technology Wants, 2010

progressive technology
march of progress

whiggish theory of history
"the history of our country during the last hundred and sixty years is eminently the history of physical, of moral, and of intellectual improvement." — Thomas Babington Macaulay, 1848
march of progress

whiggish theory of history

"the history of our country during the last hundred and sixty years is eminently the history of physical, of moral, and of intellectual improvement." — Thomas Babbington Macaulay, 1848
putting it in its place

**lone player**

History of Information - i103 2007
why HofI?

rising interest?

- Stanford University, History 205: History of Information (Tom Mullaney)
- Columbia University, CPLS4855/RELI 84855: The Digital in the Humanities (Lydia Liu)
- University of Mary Washington, Hist471D7: History of the Information Age (Jeffrey McClurken)
- University of Maryland, American Studies 260: American Culture in the Information Age (Jason Farman)
- University of Chicago, History 44903: History of Information (Adrian Johns)
- University College, London, HPSC 3045: Philosophy of Information (Phyllis Illari)
- University of Michigan, School of Information 500: “Information in Social Systems: Collections, Flows, and Processing” (Paul N. Edwards)
- University of Wisconsin-Milwaukee, English 248: “Information Overload” (Rachael Sullivan)
- North Carolina State University, Eng/Com 395: “Big Data and the Rhetoric of Information” (J.J. Sylvia)
- UC Santa Barbara, Engl 25: “Introduction to Literature and the Culture of Information” (Alan Liu)
- University of Oslo, Inf5020: “Philosophy of Information” (Yngve Lindsjørn)
- Massachusetts Institute of Technology, STS 460: “Histories of Information, Communication, and Computing Technologies” (Jennifer Light)
- University of Georgia, Engl 4590: “Topics in Nineteenth-Century British Lit: Literature and Information in the Nineteenth Century” (Richard Menke)
- Swarthmore College, Engl040: “Victorian Literature and Victorian Informatics” (Rachel Sagner Buurma)
- New York University, MCC0003: “History of Media and Communication” (Mara Mills)
- University of Michigan, SI722: “Theories and Models in Information Studies” (Paul Edwards)
- Davidson College, DIG210: “Data Culture” (Mark Sample)
- University of Texas, UGS303: “Knowing: Acquiring and Sharing Information in the Information Age” (Randolph G. Bias)
- Queens College – City University of New York, CSCI903: “Information and Intelligence” (Christopher Vickery)
where we're going

- why HofI?
- technological challenges
- getting it wrong
- practical details
"an economy based on information computerization"

technological challenges

reading through tech

Jaquard loom 1801

Babbage's difference engine 1820's

Hollerith tabulating machine 1890

Schickard's calculator 1623

Apple II 1977

DEC PDP11 1965

Eniac I 1946
computing tech?

- Ishango bone, 20,000 B.C.
- Antikythera c. 150 BCE
- Stonehenge, 3100 B.C.
- Abacus 2400, B.C.
- Napier's bones 1617
what are "information technologies"?

and when to begin?
technological challenges

or these?
or, indeed?
technological challenges

for instance
no less important?

technological challenges
where's the tech?
technological challenges

interconnecting

Ralph Wedgwood (1806)
exercise for next class

Pick one (or two!) of the following and construct a story in which it (they) serves as an "information technology." Try to make your story ingenious without being completely implausible.

a. necktie
b. blanket
c. rubber duckie
d. can of beans
e. lemon
where we're going

- why Hofl?
- technological challenges
- getting it wrong
- practical details
- where we're going
looking back to look ahead

General Motors
Futurama
1964 World's Fair

Every age writes the future in its own image
looking back to look ahead

"The American of tomorrow, clothed in plastics from head to foot, will live in a plastic house, drive a plastic auto, and fly in a plastic airplane."

—Popular Mechanics, 1940
overplayed (and underplayed)

* * *
getting it wrong
"listen to the technology"

what would most surprise the characters of *Father Knows Best* if they could see the world today?
looking around
getting it wrong

what's different?
enduring questions

what's different?

what's not as different as we thought?

how did we get from there to here?
### who/where are we?

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Office Hours</th>
<th>Office Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geoffrey Nunberg</td>
<td>nunberg@ischool.</td>
<td>Tues 11-12:30 (by appointment)</td>
<td>305b South Hall</td>
</tr>
<tr>
<td>Paul Duguid</td>
<td>duguid@ischool.</td>
<td>Weds 10-12:00 (by appointment)</td>
<td>305b South Hall</td>
</tr>
<tr>
<td>Shazeda Ahmed</td>
<td>shazeda@ischool.</td>
<td>Weds 10-12:00</td>
<td>302 South Hall</td>
</tr>
</tbody>
</table>
wait!

*meanwhile* be sure to sign up in class

if you do not want to continue with the course, *please drop, so someone can have your place*
**Course Requirements**

*Reading, assignments, class participation*—35% of course grade

- 12 assignments: 3 points each
  - Best 10 graded
  - 30 points total

- attendance and participation
  - 5 points

*Midterm exam (or paper)* — 25% of course grade

*Final exam* — 40% of course grade
Reading assignments:

There will be twelve assignments. These will generally ask you to respond to some of the reading in the syllabus. For the most part, these assignments require short answers of no more than two paragraphs (~ 200 hundred words) to questions about the readings. Responses are worth up to 3 points each. Your two lowest grades will be dropped. Thus, each student can receive up to 30 points for assignments, based on their ten best assignment grades.

Assignments will normally be given on Thursdays and must be submitted via bCourses by 5 pm on Sunday. No late assignments or assignments sent by email will be accepted.

From time to time you will be called upon to discuss your assignments in class. Please come to class ready to do so.
Reading assignments—30% of course grade

**in sum**

**reading assignments:**

c. 200 words

due Sunday @ 5

ATQ—don't just give a synopsis

include *all* readings listed for that assignment

support arguments with quotations and page numbers

give citations for sources other than the required readings

come to class ready to defend your position
class participation

Participation and lecture attendance are mandatory. Professors will assign up to 5 points for class participation.

<table>
<thead>
<tr>
<th>% attendance</th>
<th>ave final score</th>
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<tbody>
<tr>
<td>0</td>
<td>51.00</td>
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<tr>
<td>8</td>
<td>60.00</td>
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<td>33</td>
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<td>83.15</td>
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<td>75</td>
<td>84.15</td>
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<td>83</td>
<td>84.93</td>
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<td>92</td>
<td>86.22</td>
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</tbody>
</table>

don't fixate on 5
midterm exam or paper

The midterm will be an 80 minute, in-class exam on March 23 in this room. It will include three essay questions, two chosen from a list of questions provided in advance. There will also be short-answer section asking you to identify quotations, people, dates, images, and other aspects of the course. Some of these will be "unseen," others on the study guide.

Exam questions will be based on material covered in readings, slides, and class discussion. We will provide a study guide a week before the exam.

Students can ask to submit a paper instead of a midterm exam. This paper will be a 2000 word essay in response to one of a list of essay questions. We will provide a list of topics on March 6 and, if you wish to write an essay, you must let us know in writing which one you propose to write by March 15 by submitting a title, an outline, and a list of references. We will let you know if you may proceed by March 17. The paper is due at 9 a.m. on the morning of the midterm (March 23). If you do not submit by that time, you should take the midterm exam, which starts at 9:30. No late papers will be accepted.
Final — 40% of course grade

requirements

Final
May 10, 11:30-2:30 in this room

Modeled on the midterm, this three-hour exam will ask you to answer five essay questions, at least three of which will be on the final study guide. As with the midterm, there will be short-answer questions as well. The final will cover the entire syllabus, but its emphasis will be on the second half of the semester.

All students must take the final on that day. There will be no make-up options.
From time to time we may give brief homework exercises to be discussed in class. No grade will be assigned for these exercises as such, but participation in these will be taken into account when we assess the grade for class participation.

exercise for next class

Pick one (or two) of the following and construct a story in which it serves as an “information technology.” Try to make your story ingenious without being completely implausible.

- a. necktie
- b. blanket
- c. rubber ducky
- d. can of beans
- e. lemon
All work submitted for grading will be assumed to be your own unless a source is identified.

Come to class and be prepared to discuss the day's reading and, where applicable, your (written) responses to it.
course web-sites

**bCourses/Canvas**
https://ucberkeley.instructure.com/courses/1457197

**Syllabus:**

**History of Information, 2017**

INFO 103

**WEEK 1**

17 Jan: Introduction: Why "History of Information?"

[Paul's slides]

**Recording:** CalCentral
2 Feb: Cultural Effects of Writing

Some have argued that the development of alphabetic writing in Greece was crucial to the emergence of science, philosophy, and history, and changed human consciousness and the organization of society—the earliest claim for technological determinism. But what about China and India? We'll look at both sides of the question.

Required Readings


*Source: Google books [hyperlink] Also online here.*


*Source: Wiley [hyperlink]*

Additional Materials


*Source: Sage [hyperlink]*

4 Feb: Manuscript "Revolution" and the Authority of Text

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. In this class, we will look at how people at the time viewed the introduction of writing and of print and consider to what extent the latter did and did not change things.

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 philosoper, 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.)

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*
practicalities

* * *

reader ready

Copy Central
2576 Bancroft
off-campus & on-line

Library Proxy Server

You do not need the proxy server if you connect to the Internet through the UC Berkeley network in a campus building, residence hall, or via AirBears2.

Use the Library Proxy Server to remotely access UCB only article databases, electronic journals, etc. You must abide by the Library's conditions of use and licensing restrictions for electronic resources.

Configure your browser:

- Proxy set up instructions for:
  - Chromebook
  - Firefox in Windows
  - Firefox in Mac
  - Google Chrome in Windows
  - Google Chrome in Mac OSX
  - Internet Explorer 10 and 11 in Windows
  - Internet Explorer 9 in Windows
  - Internet Explorer 8 in Windows
  - iPad, iPhone and iPod Touch
  - OSX Yosemite
  - Safari in Mac OSX "Snow Leopard" and later
  - Safari in Mac OSX "Leopard" and earlier

http://www.lib.berkeley.edu/using-the-libraries/proxy-server
Bancroft library tour

BANCROFT LIBRARY TOUR ** SIGN UP HERE:[Google doc]:

- Mon Jan 30, 2:00-3:00
- Tues Jan 31, 2:00-3:00
- Weds Feb 1, 10:00-11:00 & 12:00-1:00
- Thurs Feb 2, 12:30-1:30

signup (15 per session)
link on syllabus web page
where we're going

the way-back machine’s got nothing on us
Week 1
17 Jan: introduction
19 Jan: the "age of information"

Week 2
24 Jan: technological revolutions
26 Jan: first technologies - writing

Week 3
31 Jan: cultural effects of writing
2 Feb: manuscript "revolution"

Week 4
7 Feb: print "revolution"
9 Feb: the public sphere

Week 5
14 Feb: rise of literacy
16 Feb: scientific "revolution"

Week 6
21 Feb: reference books & organization
23 Feb: information as property

Week 7
28 Feb: literacy and 19th c. public sphere
2 March: unnoticed revolutions

Week 8
7 March: communications "revolution"
9 March: advertising

Week 9
14 March: politics and propaganda
16 March: technologies of the image

Week 10
21 March: computer "revolution"
23 March: MIDTERM EXAM

Week 12
4 April: broadcast
8 April: advent of the internet

Week 13
11 April: storage and search
13 April: tba

Week 14
18 April: social implications of the internet (1)
20 April: social implications of the internet (2)

Week 15
25 April: social implications of the internet (3)
27 April: wrap
10 May: FINAL — 11:30-2:30
practicalities

School of Information
Evaluation of Faculty and Course

Course: INFO C103/ COGSCI C103/ MEDSTU C104C / HIST C192
Instructor: Paul Duguid
feedback

13. What didn’t you like about this course?
School of Information
Evaluation of Faculty and Course

Course: INFO C103/ COGSCI C103/ MEDSTU C104C / HIST C192
Instructor: Paul Duguid

13. What didn’t you like about this course?

* Practicalities
feedback

content

practicalities
content

“I liked how much history we went through, but more about the internet”
I liked how much history we went through, but more about the internet

“It was extremely relevant to my daily life ... has added a lot of perspective”
**content**

“I liked how much history we went through, but more about the internet”

“It was extremely relevant to my daily life ... has added a lot of perspective”

“I wish I’d payed attention because you covered a lot of cool shit”
content

“I liked how much history we went through, but more about the internet”

“It was extremely relevant to my daily life ... has added a lot of perspective”

“I wish I’d payed attention because you covered a lot of cool shit”

“I wish I did the readings because there was some pretty cool stuff apparently”
feedback

**time**

13. What changes, if any, would you suggest if the course is offered again?

If the assignments weren't due at 5pm on Sundays.

“have @ later time so more students attend; the content is good but since it is early people tend not to go”
feedback

discussion

“sections”

“more discussion”

“the in-class discussions took away from learning”

“I really liked having student responses shown in lecture so I could have a better of what my peers were thinking”
feedback

assignments

“grading was too picky”

“incorporate all the readings [in assignments] not just Thursday ones, otherwise people don’t read them”
feedback

other

“field trip to the Bancroft library (my favorite part of the course)”

“The Bancroft Library tour was very cool”

“British accent made the class worthwhile”
a long road in a short time

15 weeks, 50,000 years
we have a lot of ground to cover
please come on time
if you must leave early: leave quietly and from the back of the room
"I wish I wasn’t allowed to have my computer—it was distracting"

computer use

distracting yourselves
distracting others

THE CASE FOR BANNING LAPTOPS IN THE CLASSROOM

JUNE 4, 2014

BY DAN ROKCMORE
19 Jan: The "Age of Information"

Ours, it is often said, is the "age of information." In this class we will examine what that might mean and to what extent ours is the first age in history with the right to make such a claim.

*There is no required reading for this class.*

WEEK 2

24 Jan: Technological Revolutions

In this class we will look at arguments that suggest or contest the idea that technologies (and particularly information technologies) are capable of changing the world by themselves. Such claims are common today, but as we shall see, they have a long history.

*Required Reading*

*Read:* "Preface to Third Printing" (pp. v-x), and "Introduction" & "The Medium is the Message" (pp. 3-21).
*Source:* Course reader

*Read:* Chapter 1, introduction and sections a & b, pp. 1-11; & chapter 5, section c, pp. 119-127.
*Source:* Course reader
exercise for next class

Pick one (or two!) of the following and construct a story in which it serves as an "information technology." Try to make your story ingenious without being completely implausible.

a. necktie
b. blanket
c. rubber duckie
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