THE CITY AND TECHNOLOGY

Instructor: Dr. Lili Wang
Center for Social Sciences

CONTENT OF TODAY'S CLASS

1. Review of last class

......

5. Cinema and broadcast media

6. On mass media: Theories and critiques

7. The Internet and mass mobile communication

1.

REVIEW OF LAST CLASS

What did we do last week?

» **Some definitions**

» **Newspaper**

» **Telephone**

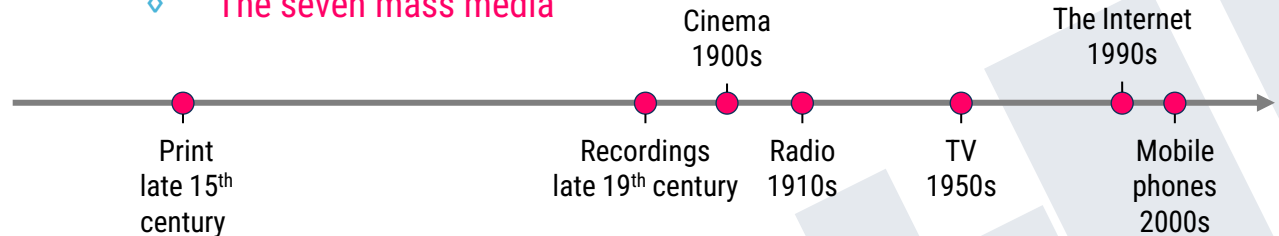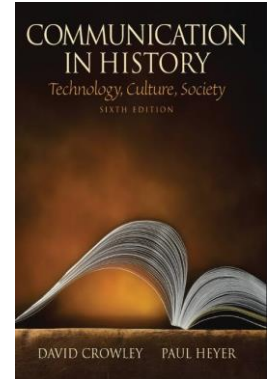» **Communication:** Transmission of information

» **Media**: The means of (mass) communication

» **Different types of communication**:
- ◇ Intrapersonal
- ◇ Interpersonal
- ◇ Group communication
- ◇ Mass communication

» **Mass communication:** The imparting or exchanging of information on a large scale to a wide range of people through mass media.
- ◇ Still evolving
- ◇ The seven mass media

COMMUNICATION IN HISTORY
Technology, Culture, Society
SIXTH EDITION

DAVID CROWLEY   PAUL HEYER

Print
late 15th century

Recordings
late 19th century

Cinema
1900s

Radio
1910s

TV
1950s

The Internet
1990s

Mobile
phones
2000s

» **Some definitions**

» **Newspaper**

» **Telephone**

Print media:
- Non-intrusive
- Tangible, enduring, more credible

Newspapers – development trajectory
- Began circulating in the 17th century
- Far more common in the late 19th century

Newspapers – impacts
- Economically
- Socially, culturally and politically
  - The rise of journalism
  - New political beliefs
  - Underground newspapers
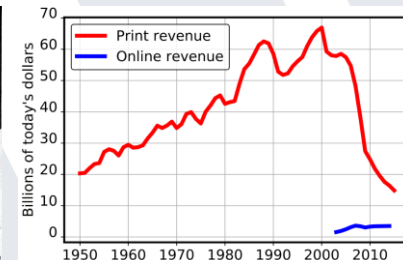 - New forms of entertainment, education

Print media and the modern city
- Major news outlets
- Integral to urban life and social and economic activities in the city

Walter Lippmann

The audience: pseudo-environment
The producer: Biases
Manufacture of consent: Role of journalism

Print revenue
Online revenue

» **Some definitions**

» **Newspaper**

» **Telephone**

Ancient telegraphy
Electronic telegraphy:
- 1830s-40s: Mose code
- 1870s: worldwide network
- 1895: radiotelegraphy

Telephone – development trajectory
- First telephone patent by Bell in 1876
- Early users of telephone
- Invention of switchboards in 1877
- Rapid expansion

Impacts (generic)
- Compression of time and space
- Dispersion, reorganization, acceleration, intensification… new forms of …

Impacts: critical thinkers' response
- E. M. Forster: "impersonal"
- Martin Heidegger: Not "authentic"
- Aldous Huxley: "loss of freedom"

- On cities
- Across cities and nations

1887

1901

Growth of the Telephone Service

# of installed Telephones

5.
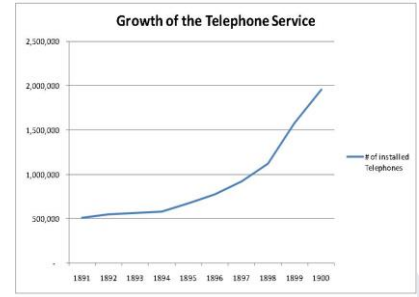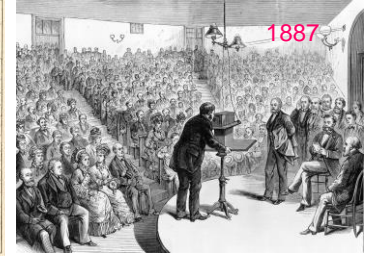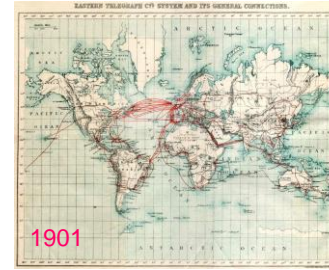
CINEMA AND BROADCASTING MEDIA

CINEMA

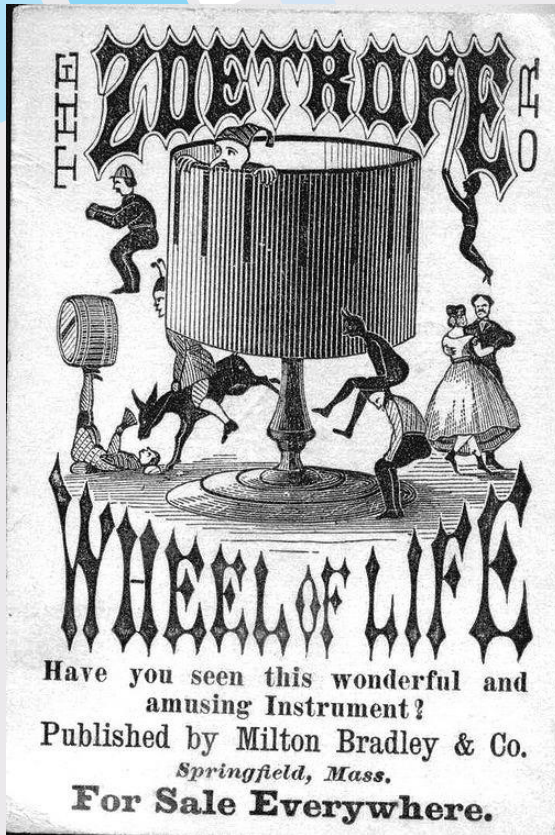» **Cinema (film, movie or motion picture, the Seventh Art):** A visual art-form used to simulate experiences that communicate ideas, stories, perceptions, feelings, beauty or atmosphere, by the means of recorded or programmed moving images, along with sound and other sensory stimulations.

» **History:**
   ◇ Plays and theatric performances since ancient times
   ◇ Phenakistoscope (转盘活动影像镜) and the later zoetrope (西洋镜) in the mid-19th century and then Theatre Optique (光学影戏机) in the late 19th century
   ◇ Photographs (roughly 1820s)   Cinema (1890s)

   Static images   →   Motion images

A phenakistoscope showing a slack rope dancer

https://graphicarts.princeton.edu/2013/10/27/phenakistoscope/

A zoetrope in work
https://www.artofplay.com/blogs/stories/fun-with-zoetropes

Early Zoetrope advertisement
Sources: https://theoptilogue.wordpress.com/2022/02/16/the-weirdness-of-zoetropes/
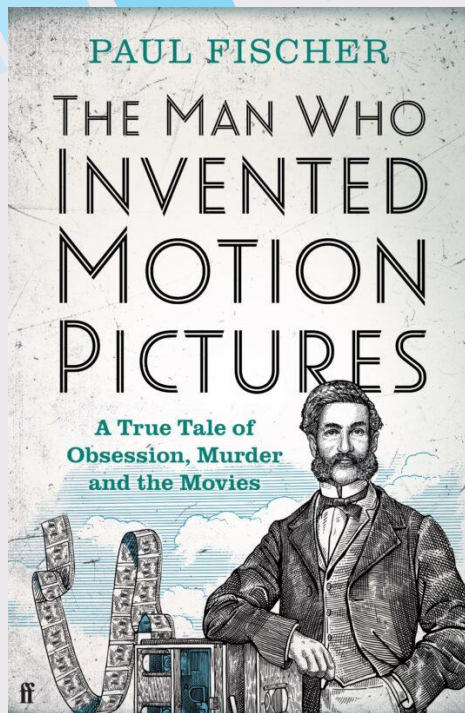
The Man Who Invented Motion Pictures | Paul Fischer (2022)

Louis Aimé Augustin Le Prince (1841 – disappeared 1890, declared dead 1897) French artist and inventor, sometimes credited as the "Father of Cinematography)

A San Francisco Kinetoscope parlor, c. 1894–95.

https://en.wikipedia.org/wiki/Kinetoscope
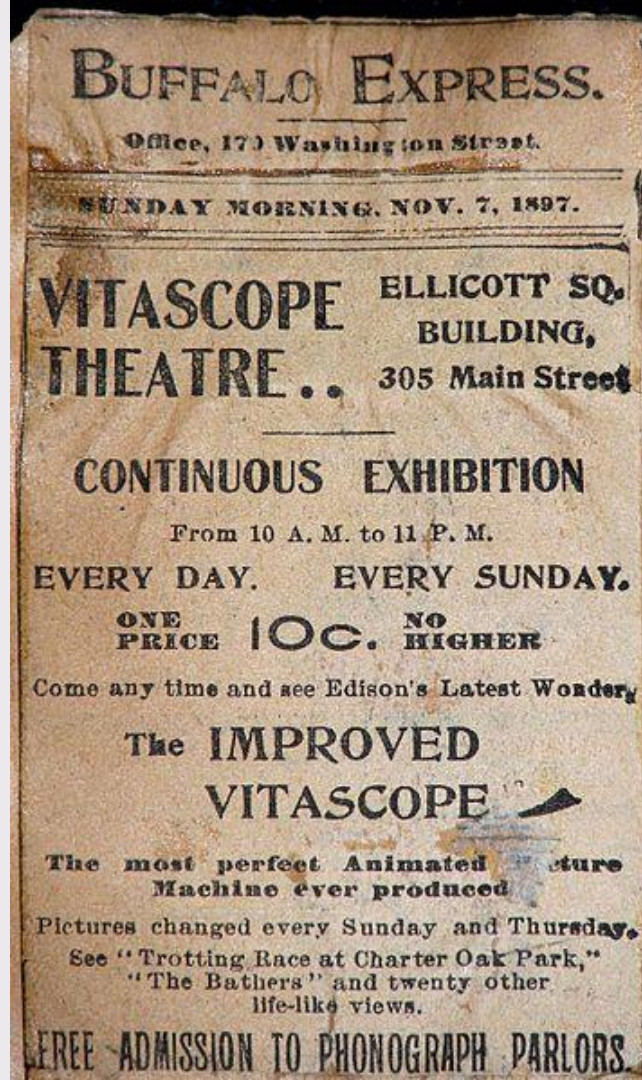
November 7, 1897 ad for the Vitascope Theater in Buffalo, New York, one of the first theaters created especially to show motion pictures. In its first year there were 200,000 admissions.

https://en.wikipedia.org/wiki/History_of_cinema_in_the_United_States

People standing in front a theatre in the US in the 1920s

CINEMA

» **Impacts**:

» Socially and culturally:
  ◊ Democratization of entertainment
  ◊ The formation of the mass society (大众社会) (alongside modernization, urbanization, and the development of capitalism)
  ◊ New social norms and cultural values → Modern identity
  ◊ Communication over long distances and across borders → Annihilation of time and space
  ◊ New sources of education and information

» Economically:
  ◊ New industries
  ◊ Consumerism
  ◊ Increased communication → increased production efficiency and a wider scale of economic organization, which impacts all kinds of industrial sectors

» Spatially: New urban functions and utilities

Walter Benjamin
(1892-1940)
German-Jewish philosopher, cultural critic, and media theorist

"

…that which withers in the age of mechanical reproduction is the aura of the work of art…
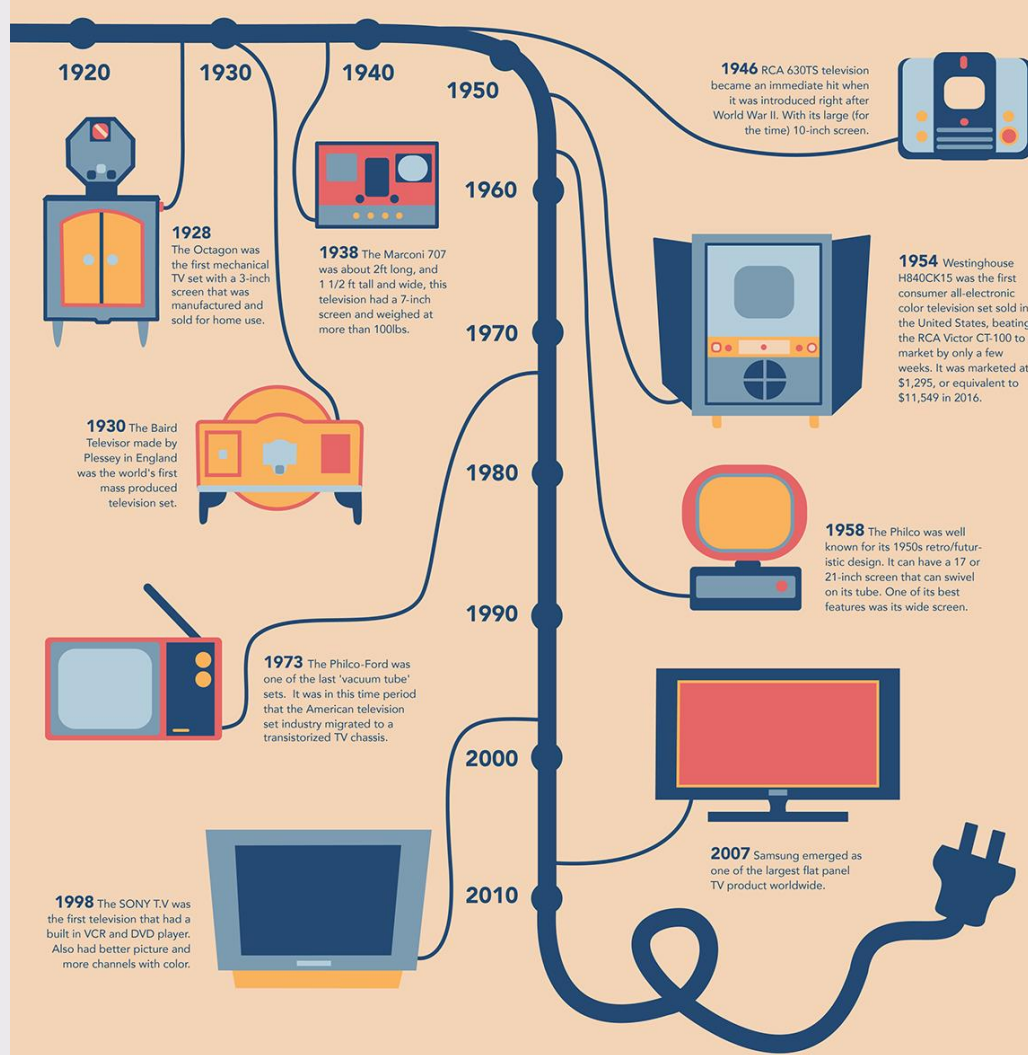
Quote from "The Work of Art in the Age of Mechanical Reproduction" (Benjamin 1936)

BROADCAST MEDIA

» **Broadcast media:** Broadcast media transmit information electronically via media such as films, radio, recorded music, or television.

» **From radio to TV:** Key supporting technologies:
  ◇ Mechanical TV vs. Electrical TV
  ◇ Broadcasting technologies

The History of Television

1920 **1930** **1940** **1950** **1960** **1970** **1980** **1990** **2000** **2010**

1946 RCA 630TS television became an immediate hit when it was introduced right after World War II. With its large (for the time) 10-inch screen.

1928 The Octagon was the first mechanical TV set with a 3-inch screen that was manufactured and sold for home use.

1938 The Marconi 707 was about 2ft long, and 1 1/2 ft tall and wide, this television had a 7-inch screen and weighed at more than 100lbs.

1954 Westinghouse H840CK15 was the first consumer all-electronic color television set sold in the United States, beating the RCA Victor CT-100 to market by only a few weeks. It was marketed at $1,295, or equivalent to $11,549 in 2016.

1930 The Baird Televisor made by Plessey in England was the world's first mass produced television set.

1958 The Philco was well known for its 1950s retro/futuristic design. It can have a 17 or 21-inch screen that can swivel on its tube. One of its best features was its wide screen.

1973 The Philco-Ford was one of the last 'vacuum tube' sets. It was in this time period that the American television set industry migrated to a transistorized TV chassis.

2007 Samsung emerged as one of the largest flat panel TV product worldwide.

1998 The SONY T.V was the first television that had a built in VCR and DVD player. Also had better picture and more channels with color.

https://www.behance.net/gallery/60115273/Timeline-History-of-Television

BROADCAST MEDIA

Impacts

» Social-cultural:
- New ways of news consumption: immediate and visual access
- Household-based entertainment
- Advertising and consumerism
- Lifestyle changes: Sedentary lifestyles; Fireplace → TV; TV structures everyday life
- New forms of cultural production: Community and social values and identities

» Economic:
- New industries: The TV industry, commercial industry
- New economic centers: e.g., Hollywood

https://courses.lumenlearning.com/suny-ushistory2os2xmaster/chapter/popular-culture-and-mass-media/

Household-based entertainment and new forms of behavior

An American family relaxes in front of their television set in 1958. Many gathered not only to watch the programming but also to eat dinner. The marketing of small folding tray tables and frozen "TV dinners" encouraged such behavior.

Television and migration

» **An opening of the world, a horizon of possibilities** – attracting people into metropolises and developed countries

  ◇ E.g., in the 20th century

» **A carrier of memory, a sense of belonging** – fostering settlement and social diversity in migration destinations
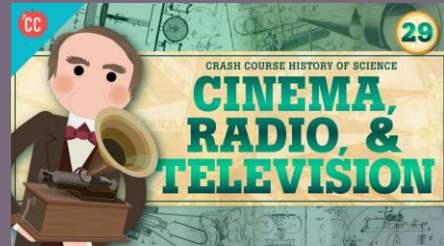
  ◇ E.g., in Australia in the 1950s

https://i.pinimg.com/originals/70/f2/71/70f2714c3412f3f0a6b90c73af6c4c85.jpg

Watch video: Cinema, Radio, and Television

(0'0" – 11'18")

By CrashCourse

https://www.youtube.com/watch?v=go3AwYghhdI

Ru Paul's Drag Race 勒·保罗的扮装皇后比赛，一个真人秀节目

Hilarious 令人捧腹大笑的

Ditch （非正式）摆脱，抛弃

Leverage 利用

Phonograph 留声机

Amplify 放大

Cylinder 圆筒

Vibrate 震动

Membrane 膜

Ridge 脊，隆起线

Encode 编码

Vinyl 黑胶唱片

Turntable 转盘

Outright 直截了当

Despise 讨厌

Creepy 诡异的

Ore 矿石

Electromagnet 电磁铁

Straight-up 直接的

Roll out 推出（新产品服务等）

Kinetograph 活动电影摄影机；爱迪生电影机

Kinetoscope 活动电影放映机

Kinetophone 有声活动电影机

Debut 首次展示

Blacksmith 铁匠

Patent troll 专利流氓

Bask in 享受; 陶醉于

Fidelity 保真度

Cart 用车运送

Reels 卷

Antenna 天线

Telegram 电报

Sibilant 咝咝作声的

Propaganda 宣传

Adaptation 改编

Martian 火星人

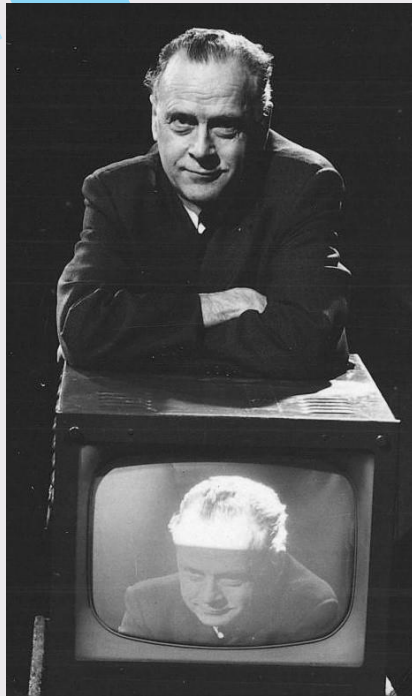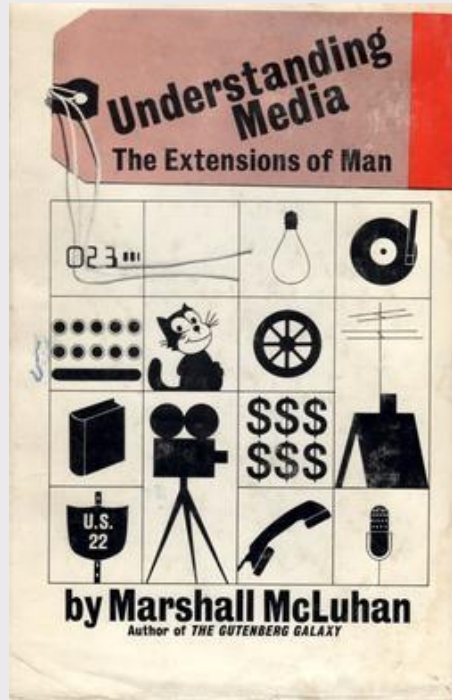Subdue 征服

Flip on 调换（收音机）

Midway through 中途

Rod 长杆，长棒

Set foot on 踏上

Discussion

- Why did the US movie industry choose to move to the west coast in the late 19th century?

- Why was radio invented later than cinema?

- How has radio impacted people's lives?

Herbert M. McLuhan (1911 – 1980), Canadian philosopher, often known as the "father of media studies"

Understanding Media: The Extensions of Man (1964)

the medium is the message

Human modes of thinking are altered by our predominant media of communication
- the *oral* word
- the *written* word
- the *printed* word
- the *electric* media
- the *electronic* media

Issue with determinism!!

"A global village" (*Understanding Media*, p. 5)

5.

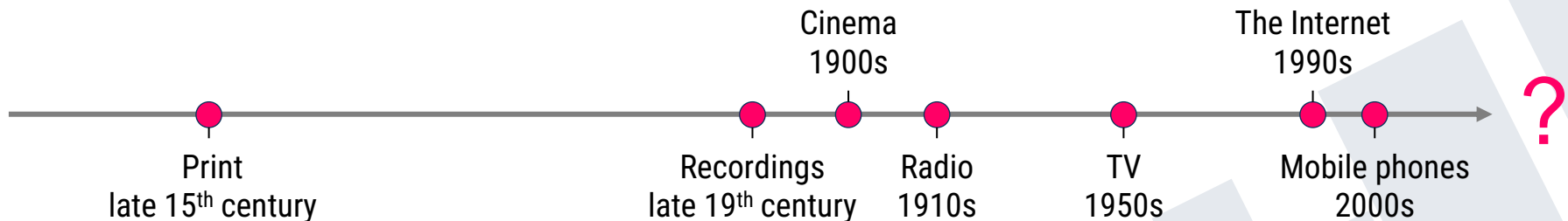## ON MASS MEDIA

On the definition of mass media

»   The imparting or exchanging of information on a large scale to a wide range of people through mass media.

»   The term is still evolving, especially in the speedy changes of media technologies

»   The seven mass media

Cinema
1900s

The Internet
1990s

Print
late 15th century

Recordings
late 19th century

Radio
1910s

TV
1950s

Mobile phones
2000s

?

Sashwat Yogi "Role Of Media In Social Awareness (A Review Study)." *Humanities & Social Sciences Reviews* 1.1 (2013): 71-73

Characteristics of Mass Media

» **Mass medium**: The **medium is capable of taking the same message around the world.**

» **Mass audience:** The **receivers of mass** media **are large.**

» **Anonymous:** The participants (**senders and receivers**) in the mass communication process are **usually unknown to each other**. The messages are **not usually directed to anyone in particular.**

» **Delayed feedback:** In interpersonal communication feedback is instant. But in mass communication feedback is slow.

» **Gate keeping: Communicators such as reporters and editors** control the flow of news they may limit, expand or reorganize information.

» **Limited sensory channels:** In mass communication, we may only be able to hear and see.

» **Universal access:** Mass communication **experience is a public one.**

» **Rapid:** Messages are sent to the audience as soon as they are received by the communicators.

» **Transient:** The message is meant to **be consumed** at **once** and then it **disappears**.

John B. Thompson
(1951-now)
British sociologist,
Professor of Sociology at
the University of Cambridge
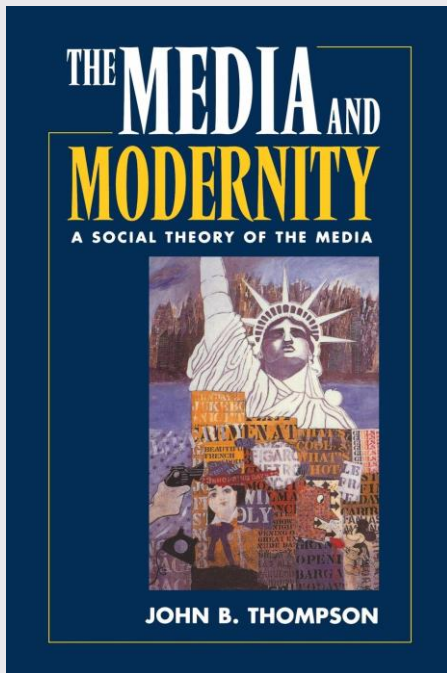
John B. Thompson (1995)
*The Media and Modernity:
A Social Theory of the
Media*. Cambridge: Polity;
Stanford: Stanford
University Press.

Mass   niche
         markets

Communication

                    One-way

Five characteristics of mass communication (by John B. Thompson)

» "Comprises both technical and institutional methods of production and distribution" of information (the media industries)

» Involves the "commodification of symbolic forms" (esp. through advertisements)

» "Separate contexts between the production and reception of information," therefore the unequal exchange between producer and the audience

» Its "reach to those 'far removed' in time and space, in comparison to the producers," therefore the spatial and temporal travel of symbolic forms

» A "'one to many' form of communication," and the public circulation of symbolic forms, hence the blurring of the private and public domains

The institutional development of media

Dominant period	Institutional character	Dominant logic	Media system	Purposes and objectives
~1920	Media as instruments of other institutions	Steered by particular interests	Party press, scientific journals, religious and arts publications etc.	Persuasion and agitation on the part of specific interests in the specific institution
1920–1980	Media as a cultural institution	Public steering	Public service radio and television (monopoly), omnibus press	Representation of various institutions in a public arena
1980–	Media as an independent media institution	Media professionalism	Commercial and competitive media, satellite TV, Internet, mobile media	Servicing of audiences, sales to target groups in a differentiated media system

Hjarvard, Stig (2008). The Mediatization of Society, Nordicom Review, 29(2). DOI: 10.1515/nor–2017–0181

On mass media

» **Critiques of mass media and popular culture**

- ◇ Manufactured consent and public opinion
- ◇ Consumerism and mass consumption
- ◇ The hegemony of corporations
- ◇ Loss of "true" life and the "self" (critical thought)

» **A somewhat "objective" stance: annihilation of space and globalization of culture**

Walter Lippmann (1889-1974) American writer, reporter, and political commentator, sometimes called the "father of modern journalism"
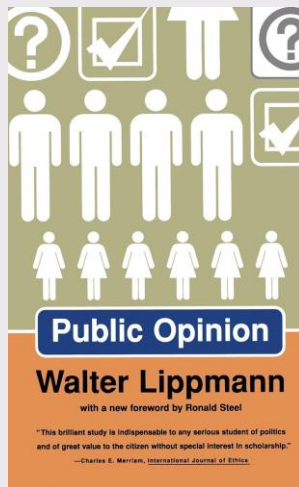
Public Opinion (1922), viewed by some as "the founding book of modern journalism"
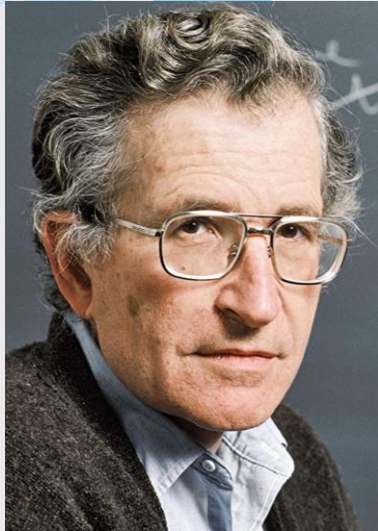
The audience:
 - Limits in cognition
 - Stereotypes and a pseudo-environment
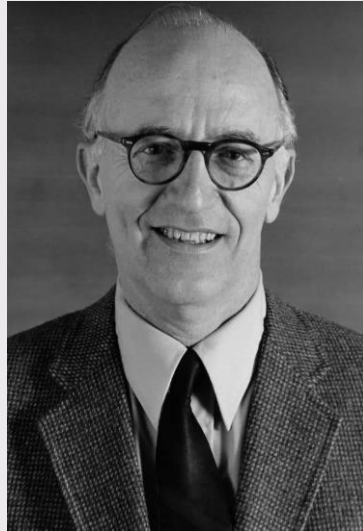
The producer:
 - Selection and biases
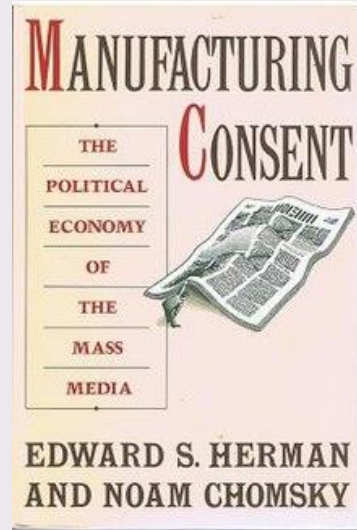 - Propaganda
 - Censorship

Manufacture of consent:
 - "the old constants of our thinking have become variables"
 - The need for a "specialized class" to guide public opinions

Noam Chomsky (1928-)
American scholar and public intellectual known for his work in linguistics, political activism, and social criticism.

Edward Samuel Herman (1925- 2017)
American economist, media scholar and social critic.

Herman, E. S., & Chomsky, N. (1988). Manufacturing Consent. New York: Pantheon Books.
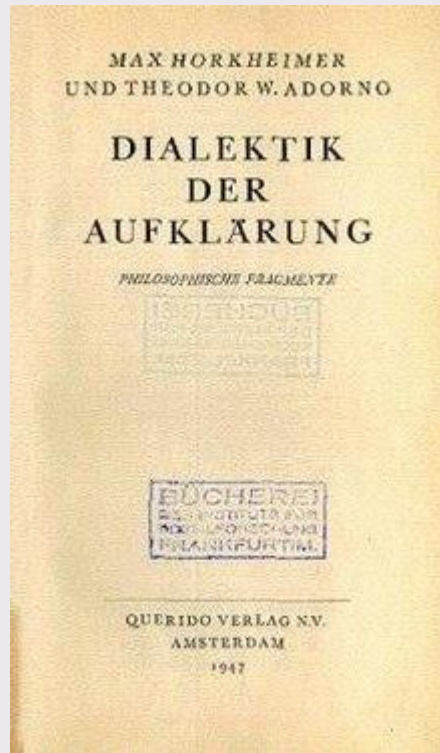
"Media manufacturing consent"

- Propaganda Model
- Five filters of editorial bias
- Limited scope of debate
- Corporate control

Theodor W. Adorno (1903-1969) German philosopher, sociologist, etc. known for its critical theory of society

Max Horkheimer (1895-1973) German philosopher, sociologist, etc. also known for its critical theory of society

MAX HORKHEIMER
UND THEODOR W. ADORNO

DIALEKTIK
DER
AUFKLÄRUNG

PHILOSOPHISCHE FRAGMENTE

BÜCHEREI

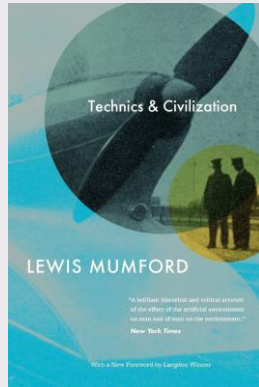QUERIDO VERLAG N.V.
AMSTERDAM
1947

"The industry bows to the vote it has itself rigged" (Adorno & Horkheimer (1947). *Dialectic of Enlightenment*. p. 106)

A critique of capitalist popular culture
- Mass commercialization
- Corporate hegemony

Lewis Mumford
(1895 –1990),
American historian,
sociologist, philosopher
of technology, and
literary critic

Technics &
Civilization
(1934)

Mumford on television and urban life

- Superficiality and fragmentation
- Decline of human interaction and social engagement (loss of a sense of reality)
- Decline of civic participation and democracy→ Rise of spectatorship and alienation
- Commercialization, entertainment, and rise of a shallow consumer (materialist) culture

- The transformative potential of technology
- BUT: the need for a critical and thoughtful approach

Lewis Mumford
Technics & Civilization
(1934)

"What will be the outcome? Obviously, a widened range of intercourse: more numerous contacts: more numerous demands on attention and time. But unfortunately, the possibility of this type of immediate intercourse on a worldwide basis does not necessarily mean a less trivial or a less parochial personality. …With the telephone the flow of interest and attention, instead of being self-directed, is at the mercy of any strange person who seeks to divert it to his own purposes. One is faced here with a magnified form of a danger common to all inventions: a tendency to use them whether or not the occasion demands" (p. 240).

"One further effect of our closer time co-ordination and our instantaneous communication must be noted here: broken time and broken attention…Nowadays the screen has vanished: the remote is as close as the near: the ephemeral is as emphatic as the durable. While the tempo of the day has been quickened by instantaneous communication the rhythm of the day has been broke: the radio, the telephone, the daily newspaper clamor for attention, and amid the host of stimuli to which people are subjected, it becomes more and more difficult to absorb and cope with any one part of the environment, to say nothing of dealing with it as a whole" (p.272).

Mass media and globalization

» Media is setting global cultural standards and linking various places: Shared yet differentiated experiences

» Cities have become spaces of flows, in and out, and nodes in a network of places that extends across the globe.

Media Facilitate and Structure Virtual Spaces for Communication and Action

Centrifugal

Globalization

Individualization

Al-Jazeera
Da Vinci Code

Blogging
Online gaming

Homogenization ← → **Differentiation**

Nationalization

Localization

Nationalistic revival
Royal celebrities

Neighborhood radio
Local newspaper

Centripetal

5.

THE INTERNET AND MASS MOBILE COMMUNICATION

The Internet and mass mobile communication

» **Key technologies and their development trajectory**

◇ Computer: 1920s; 1980s

◇ The Internet: 1960s; 1990s

◇ Smart phones: 1970s-now

◇ Social media: mid-1990s

Why smart phones?
- Portability
- Screen
- Access to the Internet
- Camera
- …

The evolution of smart phones

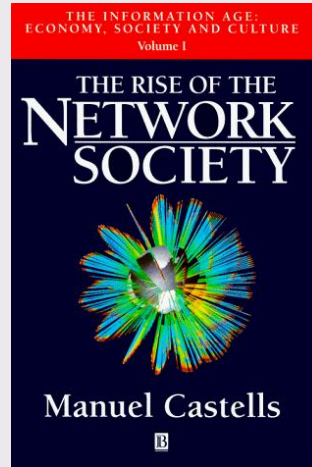| 1984	1992	1997	2000	2007	2008	2022+
Motorola DynaTAC 8000X	The First Smartphone IBM Simon	Nokia 6110	Sharp J-SH04	The First Apple iPhone	The First Android HTC Dream	Modern Smartphones

https://blog.textedly.com/smartphone-history-when-were-smartphones-invented

Manuel Castells Oliván
(1942-2021)
Spanish sociologist

The Rise of the Network
Society (1996)

- Network Society
- Informationalization →
  Information society
- Power and identity
- Space and place
- Culture and resistance

- Space of flows and
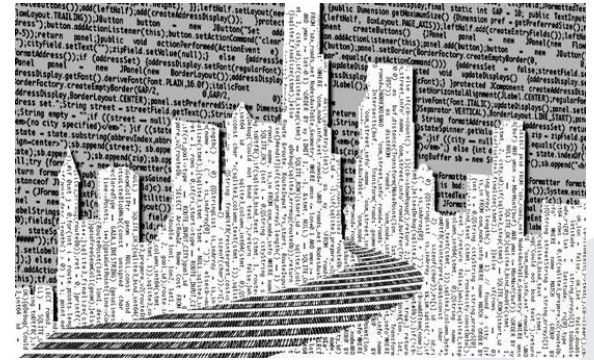 timeless time
- The rise of a culture of real
  virtuality

The Internet and mass mobile communication

Common concerns with the Internet

» Misinformation and fake news

» Echo chambers and polarization

» Privacy issues

» Cyberbullying

» Digital Addiction and Mental Health

» Digital Divide

» ......

Platform urbanism

» **Platform urbanism:** digital platforms are increasingly central to the governance, economy, experience, and understanding of the city

» Physical and digital layers of people, networks, infrastructures, and urban environments

» **Typology**
  ◊ Online-to-offline producer-consumer intermediation
  ◊ Service provider-customer intermediation
  ◊ Public service intermediation
  ◊ Not-for-profit service intermediation
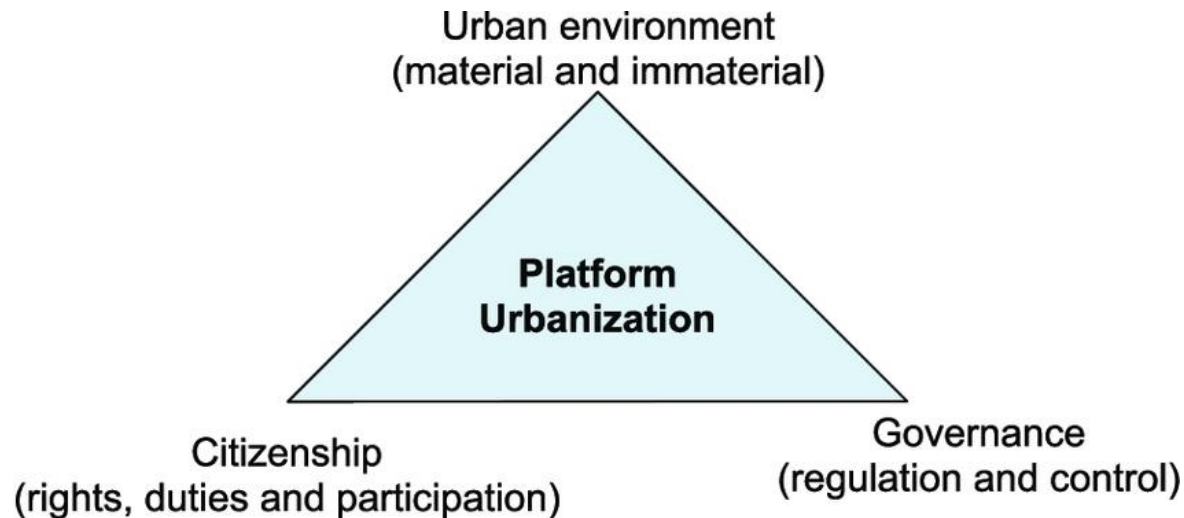

http://sarahbarns.me/publicspeaking/2019/1/30/platform-urbanism-presentation-glasgow-2016

Caprotti, F., Chang, IC.C. & Joss, S. Beyond the smart city: a typology of platform urbanism. *Urban Transform* **4**, 4 (2022). https://doi.org/10.1186/s42854-022-00033-9

Platform urbanism

Characteristics

» Hybrids

» Data-accumulating and data-driven

» Programmability

» Intermediation

» Entrepreneurial tactics

» Responsive, customizable, reflexive

Urban environment
(material and immaterial)

Platform Urbanization

Citizenship
(rights, duties and participation)

Governance
(regulation and control)

Platforms vs. Conventional infrastructure

	Infrastructure	Platform
Architecture	Heterogenous systems and networks connected via sociotechnical gateways	Programmable, stable core systems; modular, variable, complementary components
Relation between components	Interoperable through standards	Programmability within affordances; APIs
Market structures	Administratively-regulated in public interest; sometime private or public monopoly	Private competitive, sometimes regulated via antitrust and intellectual property
Focal interest	Public value; essential services	Private profit; user benefit
Standardisation	Negotiated or de facto	Unilaterally imposed by platforms
Temporality	Long-term sustainability; reliability	Frequent updating for competitive environment
Scale	Large to very large; ubiquitous, widely accessible	Small to very large; may grow to become ubiquitous
Funding	Government; subscription; lifeline services for indigent customers; pay-per-use (e.g., tickets)	Platform purchase (device), subscription (online), pay-per-use (e.g., TV shows); advertising 'Opt in,' for example; choosing one platform instead of another; creating mashups

Source: Reproduced from Plantin et al. (2018, p. 299).
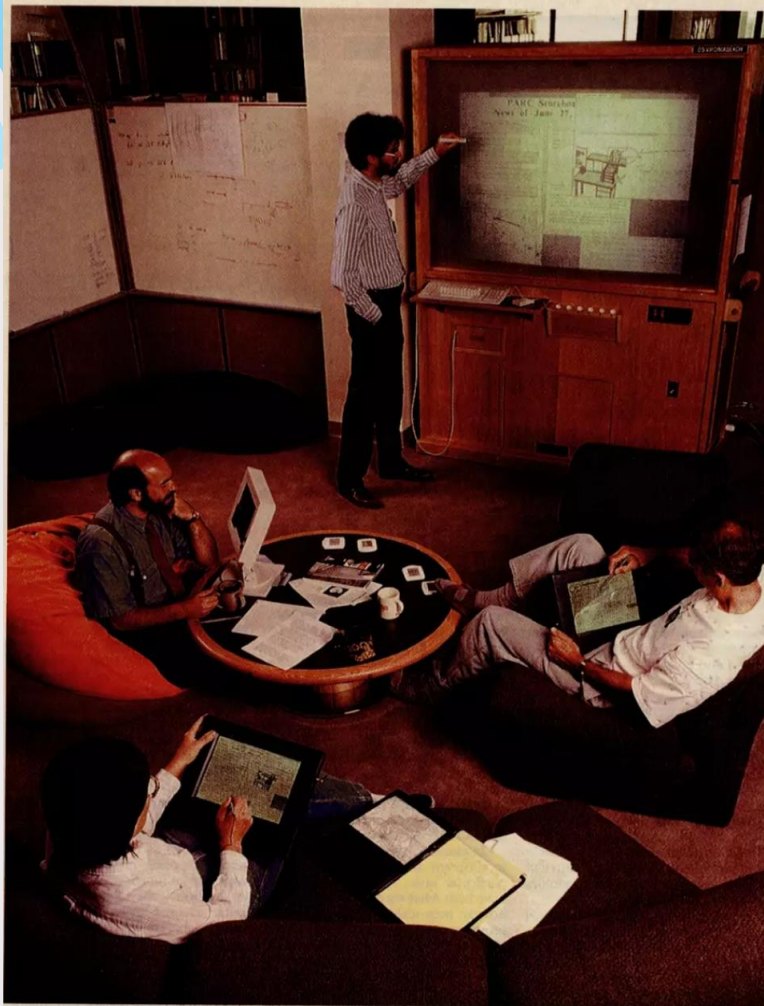
UBIQUITOUS COMPUTING begins to emerge in the form of live boards that replace chalkboards as well as in other devices at the Xerox Palo Alto Research Center. Computer scientists gather around a live board for discussion. Building boards and integrating them with other tools has helped researchers understand better the eventual shape of ubiquitous computing. In conjunction with active badges, live boards can customize the information they display.

Imagining the computer of the 21st century

Mark Weiser and colleagues, terox PARC, 1980s

https://www.slideshare.net/sarahbarns/platform-urbanism-the-politics-and-practices-of-datadriven-cities

Schedule a meeting with me to discuss the Individual Project.

QUESTIONS?

If you have any questions about the course, write them down. Feel free to ask me in the QQ group or via email. You can also bring your questions to our next class.

END OF CLASS

SEE YOU NEXT WEEK.