

Digital Media and Society

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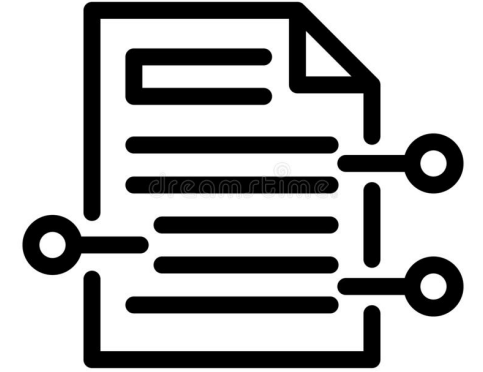
Lecture 4

DGM 711
Introduction to Digital Media



- The concept of **information society** refers to a form of society characterized by the importance of the production and management of **information** and knowledge.
- The ability to produce, manipulate, and distribute **information** becomes one of the main factors related to **wealth** and **power**.
- The birth of the **information society** was described as a **third industrial revolution** .
- The **economic system** of the information society is characterized by being **informational, global, and networked**.
- In an information society, **intellectual property rights** are divided in three main types: **(copyright, trademarks , patents)**.
- A **globalized economy** is characterized by **multinational companies**, which own **digital media**, and foster the emergence of a **global consumer culture** .

- I. The relation between technology and society .
- II. Users Matter.
- III. Space of flows.
- VI. The Global Village
- V. Conclusion.



- The **social sciences**, like sociology and anthropology, have developed theories that allow for an in-depth analysis of the link between **technology, media, and society**.
- These can help us develop a critical view on the role and evolution of **digital media**.



Chapter 04

I. The relation between technology and society

Technology Determinism



Social Construction of Technology



Chapter 04

I. The relation between technology and society

- Some theories of the **relation between technology and society** see **technology** as an **external force** that develops independently of **social** phenomena.
- Here the important thing is not so much how a particular **technology** has **developed**, but what **function** it **performs** in relation to a society.
- In this view, **computers are functional** to the aims of the institutions or social groups that use them.



- A similar approach is **technological determinism**, which understands technology as an **independent force** that can determine the development of a society.
- From this perspective, the characteristics of **digital media** affect the way in which individuals **interact** with each other, giving rise to particular forms of **social organization**.
- They are also seen as responsible for changes in **economic** structures or **business models**.



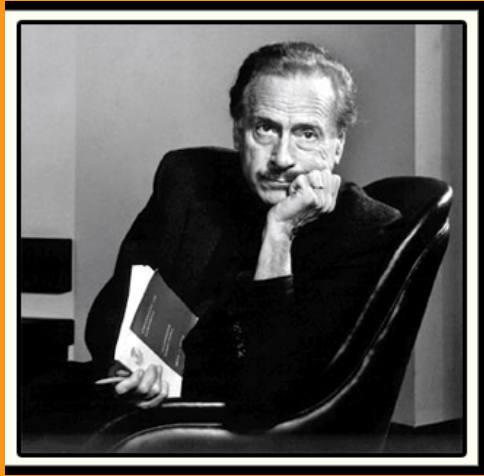
- Some form of **technological determinism** is widespread in common-sense accounts, such as **policy** initiatives relating to digital technologies or **journalism** describing the changes that they bring about.
- For example, it has been common for some time to attribute the upheavals to the spread of **social media** technologies like Facebook and Twitter .



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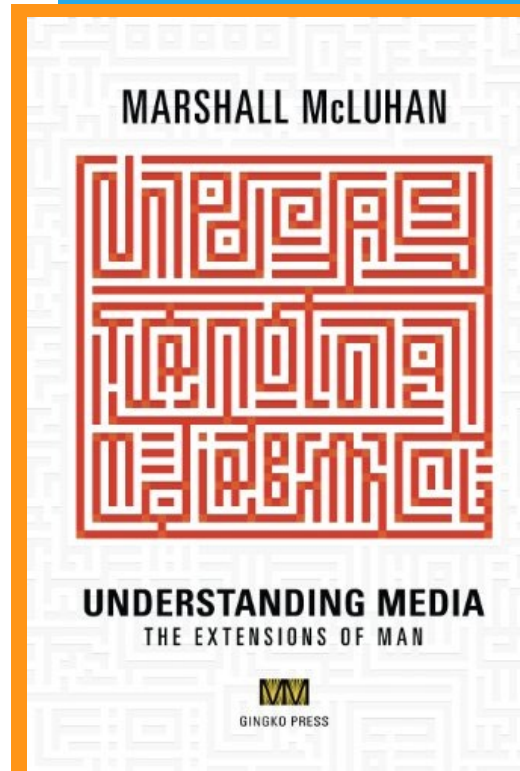
- According to **Marshall McLuhan**, “**the medium is the message.**”
- **McLuhan**, perhaps the most influential media theorist of the 1960s, thought that the “**media form**” of communication technologies used in any given **society** had a decisive **impact** on its development, regardless of the content of the communications, that is, the message they transmitted.



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- One of his most famous books, **Understanding Media**, opens by stating that “the **personal and social** consequences of any **medium** result from the new scale that is introduced into our affairs by any **new technology**”.
- To simplify this position, we could say that the most important factor is not what is transmitted on television, but that the **technology** of television itself has been introduced into people’s life, therefore allowing the transmission of moving image and sound regardless of space and time bounds.



- The **determinist** perspective remains one of the main ways used to interpret the **social and economic** dimension of **digital media**.
- It would be simplistic to think that **new technologies** do not have an **impact** in and by themselves: inventions like the wheel or means of communicating across distances, like the telegraph, have influenced deeply the **development of human societies**.



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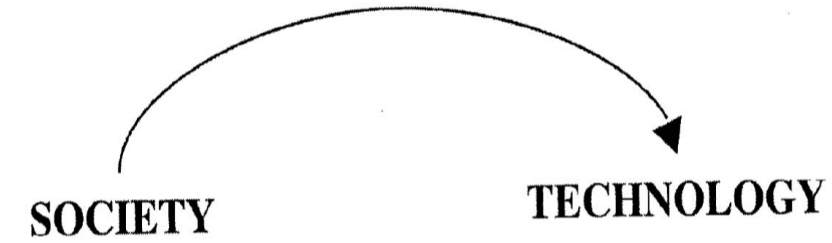


- However, this view is too **one-dimensional**. It does not take adequate account of **complexities** that mark the relationship between **technology and society**.
- For example, **technologies** are often used in a different way and for different purposes by different **social actors**.
- **The technological determinist approach**, however, can be tempered by recognizing that, with their **values** and choices, **individuals** and social groups help to determine the role played by **technology**.

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Social Construction of Technology



- An opposite perspective is **social construction of technology**.
- This theoretical approach suggests that the development, structure, and significance of a **technology** depends on the **strength, needs, and values** of the **social groups** that promote and design it (Bijker 1997).
- The evolution of a **technology** is something in which **people** participate actively.

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- This approach emphasizes how the **design** and meaning of **technologies** depend on the **social processes** by which their development is shaped.
- According to this perspective, the open and distributed **architecture of the internet** is not emerging from a vacuum, but rather due to the **values** and **choices** of the **scientists and engineers** who have designed its network structure and standards.



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- Indeed, according to the definition of Science and Technology Studies theorist **Langdon Winner** (1980), **technologies are not neutral but rather have a “politics.”**
- The way they are **designed** or the decision to adopt them in different contexts might strengthen the agenda of a particular **group**.
- This approach leads to the question of what are the **actors** who have contributed to its development and evolution of a certain **technology** , and why it has been chosen over competitive technologies.



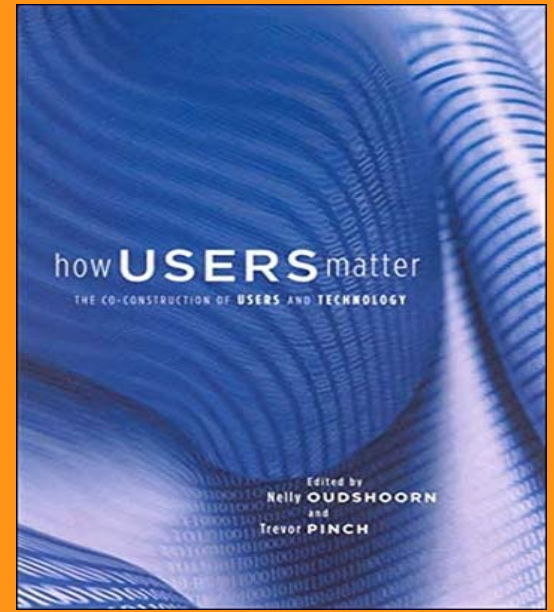
- Others have focused on the “**bias**” that certain **actors** can build into a certain **technological** system (Friedman and Nissenbaum 1997).
- For example, as the **values** of the **engineers** who **design** an **algorithm** play a role in their technical choices, this algorithm can reflect such values by **favoring or discriminating** against certain individuals or groups .



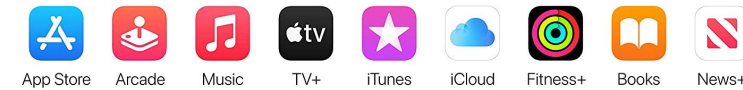
- Similar approaches also recognize the active role of **users** of technologies.
- Often early adopters or **new users** of a new technology develop **practices** that were never intended by the people who designed and commercialized it or assign new meanings to a certain technology and thus contribute to shaping it.



- In studies of the relation between **technology** and **society**, the **user** is a crucial object of research.
- Indeed, the user represents the **human factor** interacting with the machine, and must not be overlooked: “**users matter**,” to use the title of one of the most important **books** on the subject (**Oudshoorn and Pinch** 2003).
- In this perspective, **consumption** is a complex cultural activity not only related to purchasing, but also to how users **repurpose**, modify, and **resist** technology.



- On the one hand, the **design of technologies** has the **power** to “**configure**” **users** (Woolgar 1990).
- For example, the lack of interoperability of the software and standards of an **Apple** laptop pushes its users to interact only with gadgets and services commercialized by the same company, such as **iPhones, iPads, or iTunes**.
- This constrains and guides the **user's online behavior**.



- In turn, **users** are not just passively configured by technologies, and can contribute to shaping **digital media** in ways that often go beyond those imagined by those who designed and programmed a specific platform.
- One example of this is the practice of **jailbreaking**, that is, the removal of limitations built into a computer system, for example **Apple's iOS operating system** that runs Apple products.
- Thanks to **software** tools that provide access to the operating system, these practices allow **users** to install **applications** that are not officially provided by the manufacturer .





- **Users' power** to reconfigure **digital media** also has to do with the degree to which technologies are open to transformative interventions.
- **Technologies** are indeed marked by different levels of **openness** .
- They can be designed to be **accessible** and easily transformable or may have **blocks** or obstacles that prevent users from changing a **system** or using it for unintended purposes, as is the case with **Apple** products.

- Scholars have also noted the existence of “**superusers**” with specific technical **skills** and professional **positions**.
- In the case of **digital media**, these would be figures such as software **engineers**, system **administrators** (sys-admins), or **hackers** (Brunton and Coleman 2014).
- As they **design** and maintain digital networks and **algorithms**, these **users** occupy a privileged **position**.
- Their **cultures and practices** are thus particularly interesting for the study of digital technologies.



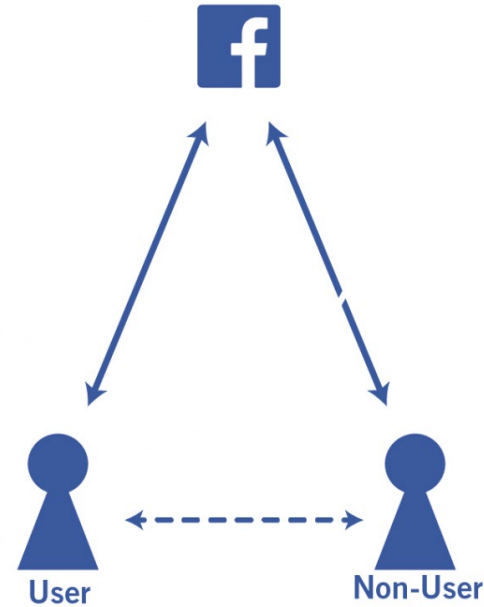
- For example, sociologists use the term **affordances**, borrowed from design and engineering, to describe how **technologies** both **enable** and **limit** what users can do with them.
- As **Donald Norman** put it, “**affordances** specify the range of possible **activities**” (1999)..



- New technologies can provide solutions and enable new forms of **action**, but at the same time this is only possible within the **boundaries** of the technology itself.
- Platforms like **Twitter** softwares are enabling technologies that allow users to create certain types of actions within specific **limits**.
- **Twitter** allows temporary publics to join an event and follow and comment on it. But at the same time this needs to be done within a format of messages that does not exceed a certain **number of characters**.
- This way, **Twitter** drives **users** to follow an established **pattern** that derives from the constraints imposed by the platform.



- Finally, **non-users** also matter: the individuals who **resist** or **reject technologies** tend to be invisible to scholars who study digital media, but their motivations and choices can shed light on the relation between **technology and society**.
- For example, deciding not to participate in **social media** communication can be a form of **resistance** to the widespread corporate surveillance carried on within such platforms.



- Finally, some social theories speak of the **co-production of technology and society**.
- In this framework, both the above perspectives, which state that **social** forces shape **technologies** or that technologies determine social development, are seen as **limited**.
- Rather, **society and technology** influence and shape each other in a process of **coevolution** where one level continuously **influences** the development of the other.
- These, and other, theoretical approaches are updated and adapted to the study of **digital media** and their specific characteristics.



- According to **Castells**, as a result of their importance in the world of economic production, **networks** have become dominant also in the **social** dimension.
- He described a “**space of flows**” composed of the spaces, both physical and mediated, where information, money, and people circulate.
- This **space** is configured as an **open network**, in which national borders and boundaries among organizations, communities, and groups are becoming less important.



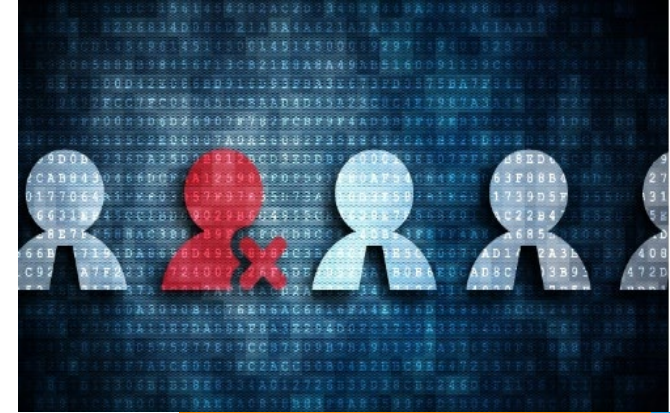
- In this **space**, a growing part of **wealth** is created through exchanges among people from different countries, organizations, or communities.
- Therefore, **individuals** who have access to **the space of flows** are the ones who possess the **skills** necessary to efficiently and productively exchange information or move freely in different places, or between one organization and another.
- These **people** can collaborate regardless of factors such as their ethnic or religious **identity**.



- At the other end of the spectrum, **individuals** who remain cut off from the **space of flows** **do not have access** to the internet or other channels that underpin flows of information and money, such as the financial market or transnational **labor markets**.
- They do not belong to the **new class of knowledge workers** who have a **university education**, are **familiar with digital media**, and have a cosmopolitan mindset based on a globalized consumer culture.



- For **Castells**, in **information societies** the main split is no longer linked only to the conflict between capital and workers, but rather expands to **conflicts** between those who have **access** to flows and those who are **excluded** from them.
- The latter tend to counteract the globalized culture of the space of flows by **reinforcing their ethnic or cultural identities**, which can become modes of **resistance** and opposition.
- **Castells'** examples of **identity-based reactions to globalization** were US far-right movements, and Islamic fundamentalism.



- On the contrary, in the **space of flows** that dominate and drive the information society, conflicts are dampened, and **individuals** compete freely for a success (or failure) which depends mainly on their ability to succeed as **entrepreneurs**.



- The Canadian media theorist **Marshall McLuhan** was one of the proponents of the role of **new media** as instruments of this kind of deep **social change**.
- According to **McLuhan**, electronic media were destined to transform humanity into a “**global village**,” by the ability to communicate in real time at a great distance provided by **new media**.
- Forms of **face-to-face relationships** that are typical of traditional societies would extend on a **global** scale.



GLOBAL VILLAGE

- **McLuhan** advocated the liberation from centralized and bureaucratic societies , the differences between rich and poor countries, and the birth of a “**global community**” .
- Yet his view was too nuanced to be described simply as **utopian**.



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VI. The Global Village

- A group of **opinion leaders** such as Kevin Kelly, Nicholas Negroponte, Stewart Brand, and Chris Anderson gathered around the magazine **Wired**, founded in 1993, and events such as **TED conferences** (Technology, Entertainment, and Design).
- They began to articulate a **vision** that derived from the culture that was already widespread within the entrepreneurial circles of **Silicon Valley**, located south of **San Francisco in California**.

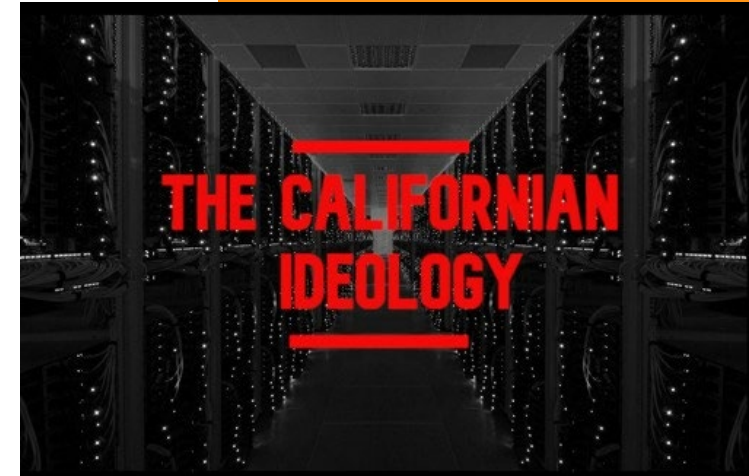


- They were painting **digital networks** as technologies that allow the spatial and bureaucratic barriers that characterize nation-states to be transcended .
- In this vision, the **individual** is a consumer or an entrepreneur who lives in a space and market **freed** from the influence of the **state**.



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- This wave of **techno-libertarianism** was later summarized in the formula “**Californian Ideology**,” a denunciation of the view that the spread of the internet will lead to widespread access to knowledge and information and thus erase differences between consumers and producers, workers and employers, and state and citizens.



- This formula has been used to criticize the idea, widespread in **Silicon Valley capitalism**, according to which the free flow of information will bring about political democratization, while an economy based on hi-tech companies will open new possibilities for enrichment for those with the necessary flexibility and entrepreneurial spirit .



- Although the concept of a **Californian Ideology** seemed to exacerbate the internet's **liberating** potential, it also allowed the importance of **radical movements** and ideas in the development of the **digital economy** to be grasped.
- One can focus on how specific groups linked to the evolution of **digital media** have been crucial **actors** in the evolution of contemporary digital technologies while infusing them with their **political** ideas.
- For example, by intervening in designing and repurposing computers and networks **hacker** communities can intervene in and redefine the **political** sphere.



- The very **informational capitalism** described by Castells has been said to be based on **cultural** foundations that are quite different from those of **industrial** capitalism.

CAPITALISM



- **Technological determinism** approach understands technology as an **independent force** that can determine the development of a **society**.
- **The social construction of technology** approach suggests that the development, structure, and significance of a **technology** depends on the **strength, needs, and values** of the **social groups** that promote and design it.
- **Technologies** are **not neutral** but rather have a **“politics.”**
- Similar approaches also recognize the active role of **users** of technologies repurpose, modify, and resist technology.
- Scholars have also noted the existence of **“superusers”** with specific technical skills and professional positions.
- Electronic media were destined to transform humanity into a **“global village”**.

CONCLUSION



Thank you for listening

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