

The Information Society

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Lecture 3

جامعة الجميع الذكية

تسعى لتكون الكيان الأول الذي يتبنى مبدأ المجتمع التعليمي
التعاوني ويقدم العلم مقابل العمل لتنمية وبناء المجتمعات.

DGM 711

Introduction to Digital Media



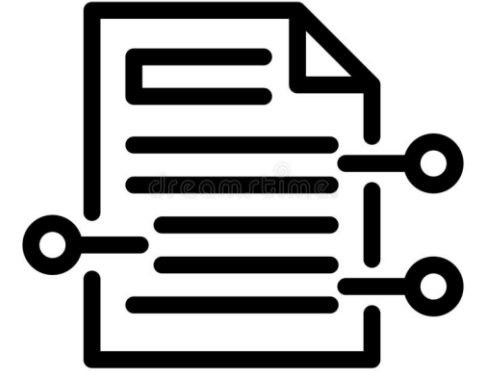
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- **Digital media** have common **characteristics** that distinguish them from Analog old media (**Convergent, Hypertextual, Distributed, Pervasive, Algorithmic, Asymmetric, Ephemeral & Permanent**) .
- The architecture of **the digital networks** is **not neutral**, but rather has the power to shape the behaviors of their users.
- The **internet** is an **open system** , based upon a **global governance system**.
- **Digital media** and network technologies are composed of different “**layers**,” (physical, logical, content & Legal).
- There are **three generations** of the web (**Web 1.0 - Web 2.0 - Web 3.0**).



- I. The Information Society Definition.
- II. The Information Society Evolution.
- III. The Networked Economy and Globalization.
- VI. Conclusion.



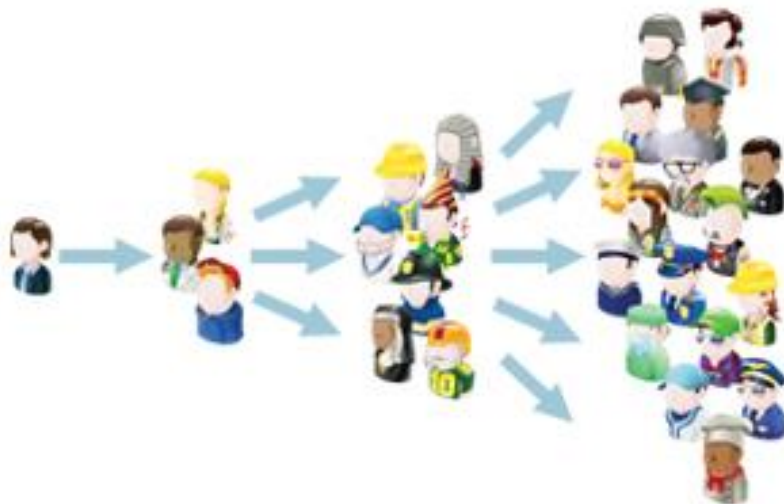


- The production and management of **information** have assumed a key role in advanced societies, and have led to the emergence of terms such as “**information society**.”
- The increasingly central position of **information** in social, political, and economic evolution has been made possible thanks to the evolution of **computers** and networks.
- **The information society** is not a given, but rather a project that continues to **grow** in new directions.

- The concept of **information society** refers to a form of society characterized by the importance of the production and management of **information** and knowledge (Webster 2014).



- In information societies, **technologies** for the production, manipulation, and communication of information are **pervasive** and **affect** social and productive processes, as well as personal and political identities.



- The ability to produce, manipulate, and distribute **information** becomes one of the main factors related to **wealth** and **power**, and therefore a battleground of economic, social, and political development for individuals, businesses, and governments.



Chapter 03

II. The Information Society Evolution

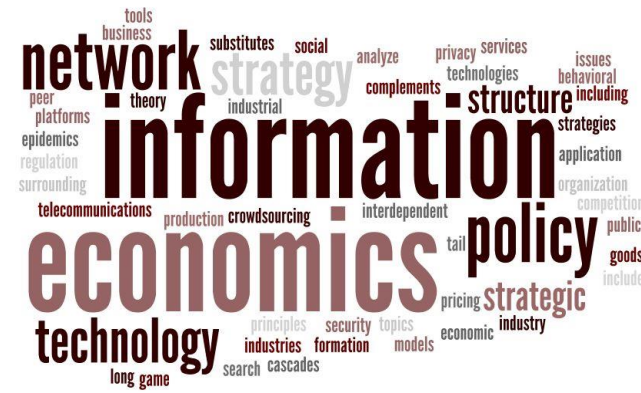
- The **birth** and affirmation of the **information society** are not only related to the spread of **digital information and communication technologies**, but also to **the economic and political upheavals** of the last few decades of the twentieth century, such as the end of the **bipolar world**, as well as the emergence of **globalization** processes and new production paradigms.



- These changes have been described with **definitions** that, while adopting different vantage points, tend to refer to the same set of phenomena.
- For example, the second half of the twentieth century saw the emergence of concepts such as “**post-industrial society,**” “**post-modern society,**” “**post-Fordism,**” “**knowledge society,**” “**network society,**” and “**cognitive capitalism**” .



- Under this new paradigm, **information** and knowledge became key **inputs** in the **economy** and organization of contemporary societies.
- The **technologies** which are used to produce, manage, and distribute **information** are widespread and characterized by **decreasing costs**, at least in rich countries where increasingly large sections of the population have access to a computer connected to digital networks and companies can organize their production processes and business through information technologies.



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- The concept of “**information society**” began to spread in the **1990s**, both in the public debate and within academia.
- The spread of the **internet**, which accelerated in the second half of the decade, created a feeling of **radical change**.
- Visions of **economic transformation** were boosted by hopes about the **democratic** and **transparent** nature of new **technologies**, as well as their wide social effects.



- According to “**cyber-utopian**” view (**Morozov** 2011), **digital networks** would lead to widespread access to knowledge and a radical political democratization, as well as to a **new economy** based on communication and flexibility.



- In the economic realm, the birth of the **information society** was described as a **third industrial revolution** .
- If the **first** was that of the **steam engine** and the **second** that of **electricity** and the internal combustion engine, the **third** would be based on **technologies** for the production, management, and transmission of information.



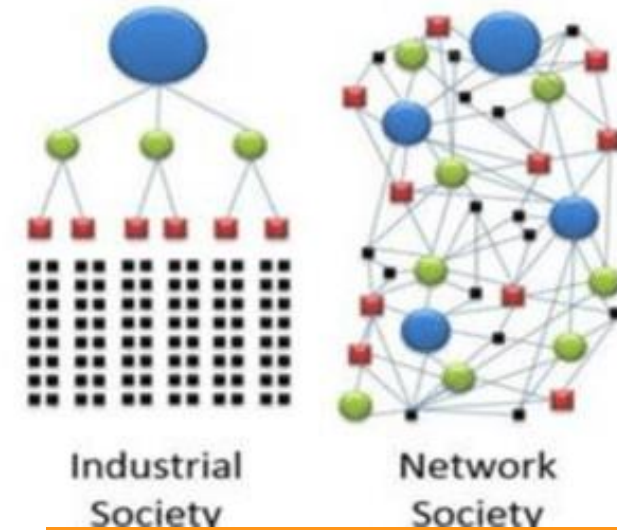
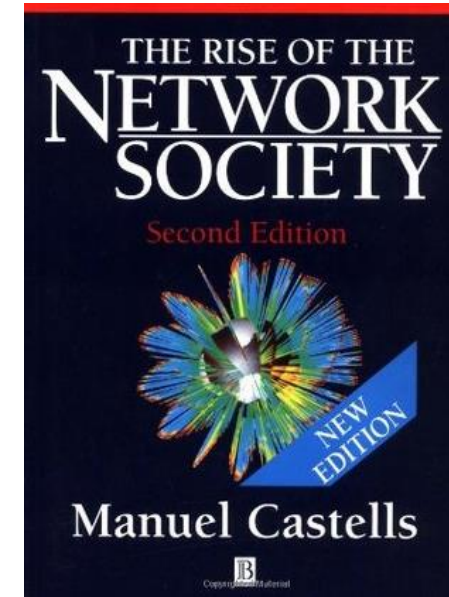
- The debate on **the rise of the information society** has been dominated by the figure of the Catalan sociologist **Manuel Castells**, who in the **1990s** articulated a detailed account of what he saw as a new era in the evolution of contemporary society, with effects in economy and politics.
- **Castells's** thesis contains a certain amount of **technological determinism**.

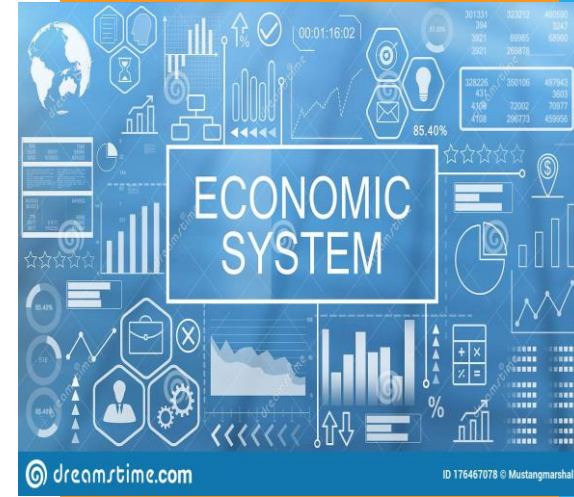


- In fact, he formalized the economic, social, and political role of **information** in a changing society.
- In **industrial societies**, economic and political **power** was linked to the production of **material** objects.
- In **information societies**, **informational** or intangible assets such as brands, innovation, and knowledge determine **economic success**.
- The era of **informational capitalism** begins.



- **Castells** described **networks** as the core organizational structures.
- In fact, he tended to use the term **“network society,”** as in the title of the first volume of his book: **The Rise of the Network Society (1996).**





- The **economic system** that has emerged from this transformation is characterized by being, in **Castells's** definition, **informational, global, and networked**.
- In **the informational economy**, productivity, competitiveness, and profitability depend on the ability to generate and manipulate **information** and knowledge.
- **Research and development**, and thus **innovation**, become crucial for the enterprise.
- Indeed, the money spent by the private sector in **scientific and technological research** exceeded public investment for the first time since World War II, a trend that continues today.

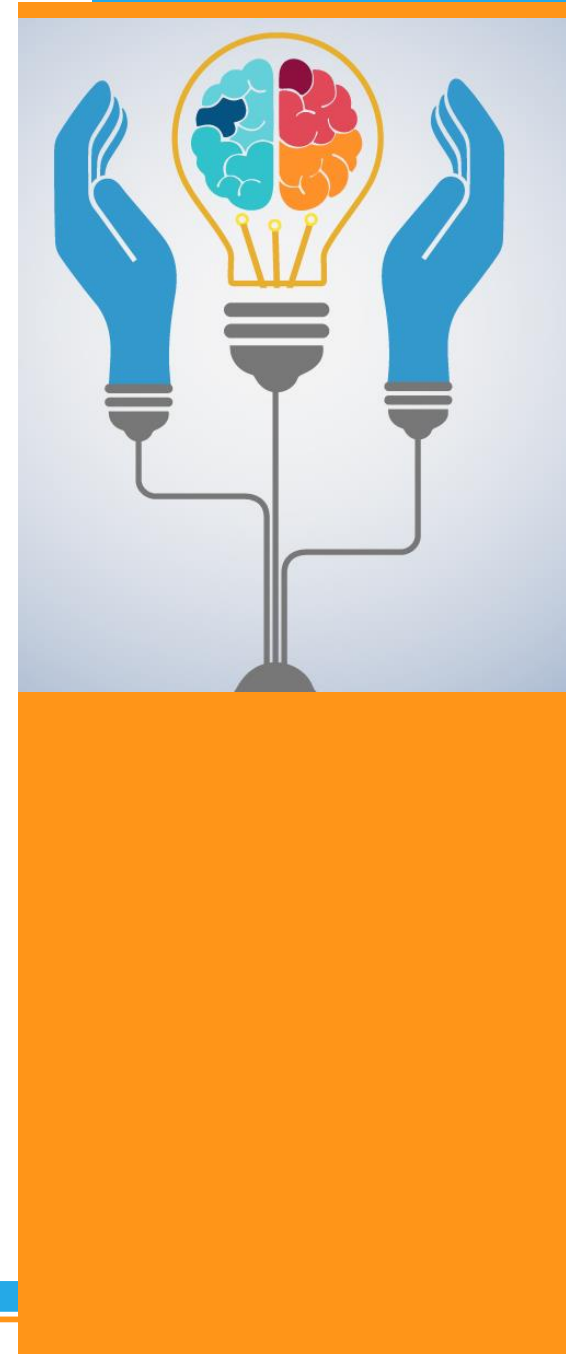
- The main **resources** of the **informational economy** are not factories and machinery, but rather those related to **information: brands, patents**, the ability to manage networks of suppliers, subcontractors, and distributors, as well as design and marketing operations.
- **Companies** like **Nike** or **Apple** do not own the factories that produce their shoes or smartphones: the production of material goods is subcontracted to external **producers**, often in **Asia**.



- **Western companies** own **the intellectual property** (patents on product innovation and trademark rights), conduct research and development, organize networks of suppliers and sales operations, and manage marketing and communication.
- Controlling these **informational goods** is more **profitable**, given that the capital invested in information provides a higher return than that invested in **material** production.



- **Information** and knowledge are both the **raw material** and the **output** of the production processes these companies control.
- Further, **information** is an **intangible good** that is crucially different from **material goods** and needs to be regulated by specific forms of **property**.
- Thus, in an **information society** **intellectual property rights** acquire unprecedented importance .



- For **companies** that produce goods with a high **information content**, such as in hi-tech or the cultural industry, owning **patents** or **copyrights** becomes crucial.
- In fact, since the early **1980s** **intellectual property rights** have been expanded to the results of **scientific research** conducted in **public universities**, as well as to new types of informational goods.
- **Intellectual property rights** have become longer and are more closely integrated at the **national** and **global** level .



- **Intellectual Property Rights**
- Intellectual property rights are an array of **legal principles** that enable creators and inventors to exercise **ownership rights** over the fruits of inventiveness and ingenuity.



- Intellectual property rights are divided in three main types:
- **1- Copyright** protects artistic, literary, and scientific work.
- for example, a **song**, a **book**, or a newspaper **article**.

Copyright Protects:

Literary



Dramatic



Musical



Artistic



Architectural



- **2- Patents** protect industrial **inventions**:
- **Innovations** that in addition to being new and original are reproducible and applicable to **industrial** activities.
- For example, a new **microchip** or **touchscreen** technology.



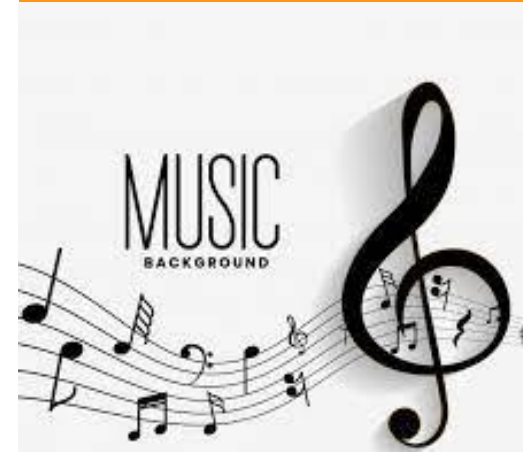
- **3- Trademarks** distinguish a **product** or a **company**, making them recognizable by the consumer.



- **Intellectual property** is a **temporary** concession that was originally meant to boost creative and inventive activities.
- After a certain period of **time**, works or inventions enter the **public domain**, so that all of society can benefit from them.
- This is based on the premise that **information** is different from **material goods**.



- Although both can be traded on the market, from an **economic** point of view a **car** is quite different from a **song**.
- First, a **car** is a **material** and **tangible good** that, if possessed by an individual, cannot be **owned** by another.
- The **cost** of producing a material good never reaches zero.





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- Instead, an **intangible good** such as a **song** behaves differently.
- Economists say that **information** is a **non-rival good**, and has a marginal cost of zero.
- **Non-rival** means that the fact that a person sings a **song** does not prevent others from doing the same at the same time: unlike in the case of **cars**, which cannot be used by two people at the same time, there is no rivalry among the users of a song.

- The marginal **cost** of **reproducing information** tends to be **zero**: recording a **song** has an initial cost, but the cost of producing copies is negligible.
- **Digital technologies** have accentuated this feature: today, producing a new **copy** of a **movie** in a computer is simple, fast, and virtually without **costs**.
- **Intellectual property rights** establish artificial marginal costs in the form of **licensing fees** to be paid to produce a **copy** of an intangible asset such as a copyrighted **song** or to build a patented **machinery**.



- A **globalized economy** is characterized by economic institutions that have the organizational and technological capacity to operate on a global scale in real time.



- However, in today's information society **globalization** has become a major **economic** phenomenon underpinned by the emergence of **new actors**.
- Among the most important are **organizations** such as **multinational companies**, which use **digital media** and networks to control complex and transnational processes.



- **Production, consumption, and movement of goods** are thus organized on a **global** scale.
- This fosters the emergence of a **global consumer culture** in which goods, lifestyles, and forms of consumption spread around the world and are adapted in different local contexts.



- **Global financial markets**, which are managed through **digital media** and network technologies, are another feature of the **globalized economy** .



- Finally, the importance of **supranational entities** and **treaties** that include sets of countries or entire regions of the globe increases.
- This is the case of **free trade agreements** such as **NAFTA** (North American Free Trade Agreement), a treaty between Mexico, the United States, and Canada that has been in place since the 1990s, the **European Union**, the **World Trade Organization**, or the **World Bank**.

North America Free Trade Agreement (NAFTA)



European Union (EU)



- Finally, Castell's **networked economy** is characterized by **flexible** forms of production.
- The rigid hierarchies of factory work and the bureaucratic organizations of industrial society are transformed toward a new paradigm of the **organization** of production.
- The processes that underpin production in such a paradigm have been described as based on **network structures**, and thus organized around **decentralized** and autonomous **production units**.





- **Networks of companies** formed by suppliers, subcontractors, manufacturers, distribution companies, and commercial operations thrive in contemporary **economies**.
- **Networks** were not born with these changes of new information and communications technologies, but rather are an old form of social organization: **kinship networks** are the fundamental form of **tribal societies**, and **networks of business** contacts by land and sea have been structuring globalization processes for centuries.



- 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** .

Thank you for listening

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