

The Digital Revolution

Chapter 2

Key notions:

What is the digital revolution?

It is often called the 4th industrial revolution. It is the rapid and profound transformation of any aspect of society with the rise of computers, the internet, A.I. and block chain.

What are the origins of the digital revolution?

It started in the 1950s with the arrival of the first computers. It was the foundation of a new era of rapid and precise computing. Then, in the 1970s and 80s computers became more accessible. Finally, the arrival of the internet in the 1990s was crucial as it helped connect the world and transformed communication, trade and even politics.

The four pillars of the digital revolution:

- The internet:

It is the catalyst of this revolution because it created new industries like online commerce and social networks. It also transformed traditional sectors like the press or entertainment. Thanks to the internet, online services have become ubiquitous.

- Smart phones and mobile technologies:

They have democratized access to digital technologies, as a consequence everyone can stay connected at all times. This has changed the way we work, we socialize and entertain ourselves.

- Artificial Intelligence:

It is redefining the potential of machines. Besides, it may revolutionize sectors like healthcare, finance and education by improving efficiency and opening up new possibilities.

- Block chain:

It is the technology behind cryptocurrencies like Bitcoin. It offers new ways to secure digital transactions and has practical applications like supply chain management or securing online voting.

Advantages of the digital revolution:

The digital revolution stimulated innovation economic growth. It also helped the emergence of new industries with companies like Google, Amazon and Meta becoming major players in the global economy. It also created an all new array of jobs in the digital sector. Besides, competition is increasing and poorer countries are developing faster as they can produce goods for the whole world.

Drawbacks of the digital revolution:

It caused the disruption of traditional industries and the loss of jobs that can now be performed by robots. The digital revolution also created the emergence of misinformation and privacy issues.

The digital divide (the difference between those who have access to digital technologies and those who do not) can deepen inequalities.

Big Data:

It is the processing of large amounts of information from different sources like connected devices, cameras, social networks etc. Algorithms detect patterns that can be used in targeted advertising or healthcare for example, thus creating value. But the question of who these data sets belong to is also highly controversial.