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**The impact of Epidemics on European  
society:  
a historical perspective of socio-economic  
change during pandemic periods**

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<b>INTRODUCTION.....</b>	<b>3</b>
<b>1. EPIDEMCS AND INFORMATION.....</b>	<b>6</b>
1.1 BUBONIC PLAGUE, CULTURE AND INFORMATION.....	6
1.2 MISINFORMATION DURING COVID-19 AND PAST EPIDEMICS: FEAR AND MISPERCEPTIONS. .....	10
1.3 RESPONSES TO PANDEMICS BETWEEN THE PAST AND THE PRESENT.....	14
1.4 INFORMATION AND VACCINES.....	18
1.5 THE ANTI-VACCINATION MOVEMENT.....	22
1.6 THE ROLE PLAYED BY DIGITALIZATION DURING THE COVID-19 PANDEMIC.....	25
1.7 FINAL COMMENTS ON EPIDEMICS AND INFORMATION.....	29
<b>2. ECONOMIC CONSEQUENCES OF EPIDEMICS.....</b>	<b>29</b>
2.1 ECONOMIC TURMOIL CAUSED BY PANDEMICS: FROM THE BLACK DEATH TO COVID-19. .	31
2.3 COVID-19: ECONOMIC CONSEQUENCES.....	35
2.3 ECONOMIC RESPONSES TO COVID-19.....	37
2.4 PANDEMICS AND CAPITALISM: IS COVID-19 THE DISEASE OF THE ANTHROPOCENE?.....	41
2.5 THE COVID-19 PANDEMIC, CAPITALISM’S FLAWS UNCOVERING AND A POSSIBLE TURNING POINT.....	46
<b>3. PANDEMICS AND PARADIGM SHIFTS.....</b>	<b>51</b>
3.1 COVID-19 PARADIGM SHIFTS: REMOTE WORKING.....	52
3.2 COVID-19 AND PARADIGM SHIFTS: DISTANCE LEARNING.....	58
3.3 COVID-19 AND PARADIGM SHIFTS: E-COMMERCE AND ‘ROBOTIZATION’.....	62
3.4 COVID-19 AND PARADIGM SHIFTS: SOCIAL MEDIA AND THE NEW MARKETING.....	65
<b>CONCLUSION.....</b>	<b>69</b>
<b>BIBLIOGRAFIA.....</b>	<b>72</b>
<b>SITOGRAFIA:.....</b>	<b>75</b>

## **Introduction**

Epidemics and infectious diseases have marked human history for decades, impacting on social and economic aspects. This work aims to explore similarities and differences between pandemic and post-pandemic periods of the past and the present, providing new literature for the post Covid-19 situation in Europe. In fact, a certain level of social and economic paradigm shift usually characterizes the aftermath of a pandemic.

The first and main thing pandemics shape is information. The three plague pandemics completely changed culture and symbols of the eras in which they broke out: figurative arts and literature became vehicles to spread fears and sentiments about the Plague. The disease left a permanent mark on European history, changing the consciousness of mankind forever. One of the most immediate consequences was the emergence of fears due to ignorance of the virus. These fears led to the circulation of misinformation, at a time when medicine was still too backward to quell the confusion. Misinformation is common to all pandemics. Indeed, the Smallpox pandemic saw misinformation becoming a feature to damage commercial rivals. The only change over time has been the access to information that is now easier and quicker than previous pandemics thanks to technological development. Despite progress in the availability of information, it has become easier both to spread and to fall for fake news. Even though fake news are a feature of all pandemics, they are now becoming more and more uncontrollable and problematical. During *Yersinia pestis* times, theories about the devil and the witches as possible causes for the spread of the plague were widespread. Also, the Jews and marginal people were often believed to be plague-spreaders. The fear of the foreigners started to be ordinary. Trials and executions were frequently the outcome of such persecutions. Luckily, those outcomes are far from today's practices, but conspiracy theories and social tensions have continued to spread even in the aftermath of the Covid-19 outbreak. However, the spread of information has also benefited society. Institutional responses to the Covid-19 pandemic derived from centuries of learning how to manage pandemics: quarantines, lazarettos, sanitary cordons and social distancing are all inherited from at least the 15<sup>th</sup> century. Indeed, Venice and other port cities also created new institutions in order to coordinate disease information for commercial purposes: the Health Magistracies.

Then, information and misinformation are also involved with the development of vaccines. The debate on this subject has been intense and divisive since the days of the first inoculations. Initially it was purely scientific, but soon the battle became political, media and cultural. Now as in the past, countless publications for or against vaccines have spread like wildfire around the world, leading to great confusion. Scientists, doctor, and institutions has had to act as mediators to counter false beliefs and conspiracy theories. Indeed, even though the term ‘no-vax’ is quite recent, the anti-vaccine movement has existed since the invention of vaccines and is now more alive than it has ever been. It seems that centuries of scientific discovery cannot prevent people to fear that vaccines are going to cause more harm than good. Misinformation about vaccines undermines national vaccination efforts as it can lead to increased vaccine hesitancy, which, in turn, reduces vaccination uptake. The Covid-19 pandemic has accelerated the process of digitisation of the society with tangible consequences in terms of how information has changed. During global pandemics of the past there was not this immediacy in the flow of information, therefore the risk of ‘fake news contagion’ was lower and less dangerous. The pandemic has raised awareness on how society’s changing due to advancements in digital technology. However, with great progress, many problems may also arise. During the current Covid-19 pandemic, social networks have been the main channel through which news about the circulation of the virus have been spread. The Internet has made the flow of information easier, but it has also created the problem of excess of information, that has inevitably led to misinformation and the spread of fake news. This issue brings about the problem of controlling social network and their influence in the everyday life. Covid-19 has acted as a game changer for our society. The disease has definitively pushed the world towards digitalization. However, the process has not been uniform because of the wide gap that divides developed and developing countries. Simply put, poorer countries do not have the technologies to do the shift. Here, Covid-19 presents its first revelation: the current capitalist world is built on inequalities. It has always been like this but in some respects perhaps a pandemic was needed to remind us. Infectious diseases, in fact, are a direct consequence of the imperialist approach of the capitalist system, which leads to the destruction of wildlife where these viruses proliferate, bringing them into close contact with humans. The virus is a warning, but climate change is the other great emergency that already concerns us and will be increasingly critical if we do not make our way of life more sustainable. It must also be said that with the exponential population growth of recent decades, the road ahead looks increasingly dangerous and long. All pandemic periods have brought economic turmoil. The Black Death stood out as a special case: instead of increasing

and widening inequalities, it led to a decrease in inequalities. However, this was specifically due to two factors: the extremely high mortality rate, and the pre-plague institutional framework. Also, every pandemic has asymmetric consequences because of the structural differences between countries in their economic systems and stages of development. However, the Black Death, in combination with other externalities such as climate, is said to be the epidemic that put the final blow to the feudal system. Indeed, it can be assumed that pandemics bring about some paradigm shifts that change society. Even Covid-19 is causing paradigm shifts at multiple levels, but it is increasingly difficult to compare to past pandemics because of the demographic growth of the population and the technologic evolution that have come through the last decades. Throughout the course of this work, it will be seen how demography is a problem, especially in certain areas, as it has led to increased urbanization that has become a breeding ground for epidemics, but it is also a problem for income distribution as the demographic growth often carries rising unemployment within a population. The Covid-19 pandemic has exposed and worsened existing inequalities between and within countries. Even most developed countries have had to provide huge fiscal stimuli to the domestic economic system in order to help people sustain their lives. The role of the State has indeed come back as pivotal in the economic scenario. Given all that, some scholars have argued that Covid-19 is the disease of the Anthropocene, or better yet, the disease of capitalism. This will be explained over the course of the paper, which will end up with a summary of the possible paradigm shifts triggered by the Covid-19 pandemic. The economy and society could change forever, but will the change be the same for everyone? How is capitalism going to change to tackle existing problems and the next threat posed by climate change and exhaustion of resources? The pandemic has also triggered a technological shift. Will the world go towards complete digitalisation? What will be the future of education? Will remote working continue to be practiced? Will e-commerce outstand small/medium-size physical shops? Will we live more and more between normal life and social media life? Through the course of this work, I will try to address these questions. In chapter one I will explore the relationship between infectious diseases and information by analysing differences and similarities in the way information has been disseminated between past and present epidemics. The second chapter will consist of a comparison between the economic consequences of past pandemics and the current Covid-19 pandemic and the third and final chapter will explore the issue of Covid-19 induced paradigm shifts. These two chapters will focus on the consequences of human lifestyle and capitalism, exploring the critical issues and the main problems that need to be solved in order to alleviate social and economic inequalities

between humans and raise awareness for the upcoming challenges humanity is going to face in the forthcoming future, including the possibility of further pandemics and climate change.

## **1. EPIDEMCS AND INFORMATION**

### **1.1 Bubonic plague, culture and information**

It is widely acknowledged that certain diseases can transform society. The Covid-19 outbreak changed many aspects of everyday lives in Europe, but it was no absolute novelty. The 14<sup>th</sup> century bubonic plague pandemic was perhaps the first in shocking the European context. Indeed, bubonic plague is one of the best examples of a disease that affects every aspect of society: “it transformed the demography of early modern Europe [...] it had devastating effects on economic life and development [...] it influenced religion and popular culture, giving rise to a new piety, the cults of plague, and to passion plays. Bubonic plague also deeply affected the relationship of people to their mortality, and indeed to God<sup>1</sup>”.

Consequently, the arrival of the plague dramatically changed culture and information, giving rise to a new set of images that was to last for centuries. “In literature, an entire genre of plague arose, including works by Giovanni Boccaccio, Daniel Defoe, Alessandro Manzoni, and Albert Camus. It also transformed the iconography of European painting, sculpture, and architecture”<sup>2</sup>. Artistic pieces (paintings, wood-block prints, sculptures, and others) tended to be more realistic than before and, almost uniformly, focused on death: “the most famous motif was the Dance of Death (also known as Danse Macabre) an allegorical representation of death claiming people from all walks of life to come with him. Post-plague art did not reference the plague directly but anyone viewing a piece would understand the symbolism. This is not to say there were no allusions to death before the plague, only that such became far more pronounced afterwards<sup>3</sup>”. The cultural impact was strong on religion, as many believed the plague was God’s punishment for sinful ways. Church lands and buildings were unaffected, but there were too few priests left to maintain the old schedule of services. Over half the parish priests, who gave the final sacraments to the dying, died themselves. The church moved to recruit replacements, but the process took time. New colleges were opened

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<sup>1</sup> SNOWDEN F.M, *Epidemics and Society: From the Black Death to the Present*, Yale University Press, (2019) p. 31.

<sup>2</sup> *Ibidem*.

<sup>3</sup> MARK J., *Effects of the Black Death on Europe*, World History Encyclopedia (April 2020).

at established universities, and the training process sped up. The shortage of priests opened new opportunities for laywomen to assume more extensive and important service roles in local parishes. In this context, the new symbolism about death flourished among the European population.

Back in those days, literature was the main channel to spread information and considerations about plague, and even if we clearly need to take in to account that writers were neither physicians nor doctors, some of them provided useful description of the disease and its consequences. Indeed, Boccaccio and Manzoni are striking examples to the contribution in spreading knowledge about plague. Boccaccio provided the world with an interesting description of the plague that stroke in Florence. In the 'Decameron' he combined the tales of fictional characters with the narrative of the plague, and it contributed to spread knowledge about the disease in Italy. In the first chapter, Boccaccio claimed that the novel was made not only to amuse the readers, but also to inform about the dramatic conditions that afflicted the city of Florence. The text contains also many advices to preserve a healthy environment and avoid contagion, and a description of the symptoms that were different from the Asian ones. Moreover, Boccaccio stood out for the worthlessness of prayers and sacrifices, criticized the fear of the sick and the drinkers that kept filling the taverns, suggesting people to lock themselves up in their homes.

Centuries later, even Manzoni added some elements that we could easily find today, related to the Covid-19 pandemic. In *The Betrothed* he shows “the fear of foreigners, the clash between authorities, the search for the index patient, the contempt on experts, the plague-spreader hunt, fake news, fallacious remedies, the raid of basic goods, and the health emergency<sup>4</sup>”. It was precisely the famous pages of *The Betrothed* that, from the first edition of 1827, enshrined the universal use of the word 'untore'. For Manzoni, the Milanese anointings are a famous delirium fuelled by a general prejudice, or rather by a sum of all the most common and harmful prejudices. He was well aware of the long cultural tradition that gave strength and reasonableness to the hypothesis of the manufactured plague. The actual story of the trial of the plague-spreaders, initially planned as a chapter of '*Fermo e Lucia*', was then resumed and developed in the autonomous history of the “Infamous Column” as an appendix to the definitive edition of the '*The Betrothed*' which appeared, in instalments, between 1840 and 1841 and was completed in 1842. Among the novel's real-life characters, Manzoni recalls Ludovico Settala, professor of medicine and proto-physicist, who, 'for having seen clearly,

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<sup>4</sup> DONAT-CATTIN M., *La peste del Manzoni tra presente e passato*, Fondazione Donat-Cattin, (April 2020).

said what he was, and wanted to save many thousands of people from the plague [...] was the object of insults and aggressions' and accused 'of being the leader of those who necessarily wanted there to be a plague; he who frightened the city, with that frown of his, with that beard of his: all to give the doctors something to do' (Chap. XXXI, par. 285). Manzoni also takes issue with plague deniers. Among those who opposed 'the opinion of contagion' (par. 300) there were also many doctors, who soon, forced by the reality of the facts to admit the existence of the disease, tried to reduce the emotional impact among the population, attributing 'a generic name to the new disease [...] (defining it) malignant fevers or pestilent fevers: a miserable transaction, or rather a truffle of words that also did great damage; because [...] succeeded in not letting people believe what was most important to believe, to see, that the disease was attacked by contact' (par. 305). With the spread of the disease, which progressively invaded a large part of northern and central Italy, even among the common people, who could no longer deny its existence, there were more people 'all the more willing to find another cause, to make good whatever came into the field' (par. 410, still in the same chapter), ending up by identifying the 'anointers' as responsible for the spread of the plague. Even Renzo Tramaglino was mistaken for one of them only because he knocked on the wrong door; he was also marginally responsible for the unfoundedness of the disease. When the death rate was so high and the lazarettos were so full that the reality of the plague was undeniable to all, there were still those who continued to look for a 'scientific' reason. Among these, Manzoni identifies in the evanescent figure of Don Ferrante (a fictional character) the (one of...) protagonist of the change of course of the scientists, who, having to surrender to the evidence, and no longer being able to deny the disease, began 'to investigate the causes' (Chap. XXXVII, par. 405), adding confusion to confusion, uncertainty to uncertainty. Don Ferrante thus developed his own theory, according to which the reason for the plague was to be found in 'astronomical' causes and not in health.

Manzoni is astonishingly contemporary in describing the false beliefs of the population and the disturbing hunt of the anointed caused by fear of contagion.

Even the great Milanese illuminist Pietro Verri came to deal with the 'Infamous Column' and the unctions, driven by his revulsion at the criminal procedures of his time and in particular the systematic use of torture to ascertain the truth about the plague-spreaders. 'One hundred and forty thousand Milanese citizens perished, slaughtered by ignorance', wrote Verri in *Osservazioni sulla Tortura* (1777), after having ascertained that what killed the people during the Milanese plague of 1630 was indeed the epidemic, but even more the fact that they acted without the guidance of reason. In search of a scapegoat, people relied on beliefs and



superstitions, allowing them to be dragged into death, instead of adopting the only behaviour that could have kept them alive. Verri recounts the fateful apparitions of comets, diabolic beings and the famous anointers, blamed by the Milanese people for spreading the contagion and defended by him in his writings. Even the most influential figures, the magistrates, were overwhelmed by fears and adopted counterproductive measures, allowing the Milanese to gather in a large religious procession to pray that the plague would end, instead of inviting them to fight it with proper methods. And they did so much that they could no longer control the deaths: "Instead of keeping the citizens segregated from one another with exact orders, instead of ordering each one to stay at home, assigning good men to different quarters to supply each family with what they needed, which is the only remedy that can prevent the communication of the disease, and which, if used from the beginning, would perhaps have calmed the pestilence with less than a hundred men; But instead of all this, a solemn procession was commanded, with a misunderstood piety, in which all classes of citizens gathered together, and the pestilence was prodigiously communicated to the whole city, where from that moment on, up to nine hundred deaths a day began to be counted<sup>5</sup>". It is clear, reading what Verri wrote, that the behaviour of the political class of the time was completely irresponsible and negligent and that the inability of the political class facilitated the rapid and destructive spread of the contagion. Verri's words could apply well even to the current pandemic situation.

Last but not least, it is relevant to mention Albert Camus and his well-known novel '*The Plague*', which represents a journey into the misery that an epidemic brings with it, but it also retraces the stages the human mind goes through to deal with it: from rejection to anguish, from terror to resignation, *The Plague* describes all the states of mind that creep up on men in desperate circumstances. Camus' masterpiece contains a peculiar consideration about epidemics that is deeply in contrast with the post Covid-19 rhetoric. Over the past few years, the hope that the pandemic will empower humans to avoid committing the same mistakes of the past by fostering a gentler approach towards the planet, its natural environment, and the fight against inequalities and global poverty has been notably widespread. By contrast, at the end of *The Plague* Camus argued that epidemics are something that happens without pretending to teach anyone anything. The destruction they bring, the families they tear apart, serve absolutely nothing except to remind us that nature responds to laws that are completely indifferent to human happiness. There are also other interesting points that might describe the

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<sup>5</sup> VERRI P., *Osservazioni sulla tortura*, (1804) pp. 68-69.

actual pandemic situation, such as descriptions of human reactions and psychosis that followed the beginning of the plague. In fact, the responses are similar: denial, uncontrolled dissemination of false news, fear, isolation, and the search for a scapegoat.

The spread of false and fake news, fostered by the astonishingly huge amount of information that circulates in the medias and the internet nowadays, is particularly accountable for the post-pandemic psychosis that has recently arose.

## **1.2 Misinformation during Covid-19 and past epidemics: fear and misperceptions.**

A huge portion of information is misinformation. This is dramatically true for both present and past pandemics. Misinformation about Covid-19 has proliferated widely on social media, ranging from the “peddling of fake ‘cures’ such as gargling with lemon or salt water and injecting yourself with bleach, to false conspiracy theories that the virus was bioengineered in a lab in Wuhan or that the 5G cellular network is causing or exacerbating symptoms of COVID-19<sup>6</sup>”. The medical community also played a role in making the situation even more confusing by giving, in some cases, inaccurate and sometimes contradictory indications on COVID-19: “few weeks after the start of the pandemic, comments from non-specialists in infectious-respiratory problems could be seen in the mainstream media. It seemed as though the entire scientific community (gastroenterologists, nephrologists, surgeons, neurologists...) were releasing statements and writing articles as if they were the main experts of COVID-19. People were so overwhelmed by this flood of information that they did not have time to understand it correctly. The massive presence in the mass media of doctors who expressed their opinions, sometimes not supported by scientific evidence, could be interpreted as a desire to appear rather than the need to provide the correct indications<sup>7</sup>”. Moreover, the amount of information during lockdown and social distancing have resulted in mental problems as posttraumatic stress syndrome (PTSD), “characterized by anxiety, sleep disturbances, distress, and a drop in the tone of the mood with a decrease of positive mood such as happiness and serenity and an increase of sadness or boredom. Misinformation and fake news contributed to the onset of PTSD and headline stress disorder cases. The

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<sup>6</sup> VAN DER LINDEN S., ROZENBEEK J., COMPTON J., *Inoculating against fake news about Covid-19*, Frontiers in Psychology, 2020.

<sup>7</sup> TAGLIABUE F., GALASSI L., MARIANI P., *The “pandemic” of misinformation in Covid-19*, Springer Nature Switzerland AG (2020).

consequences of these disorders have not only had effect in the peak infection phase but will also have future repercussions<sup>8</sup>”. Misinformation about pandemics is nothing new. On the contrary, it is something that past and present epidemics have in common. The only difference lies in the access to information that is now easier and quicker than previous pandemics thanks to technological development. “We now know that bubonic plague was transmitted to humans from fleas that carried the bacterium *Yersinia pestis*. Once the disease had reached the respiratory system, it could then be passed from person to person through coughing or sneezing [...] misinformation about the quick spread of the plague ranged from divine punishment for collective sin to the alignment of the stars. Other interpretations centred on the spread of bad smells or ‘miasmas’ as the source of infection or an imbalance in the body’s delicate four humours<sup>9</sup>”. However, the impact fake news had on the post-Black Death society can be justified as literacy rates and access to information were at the lowest level in Europe. Today, information technology has made possible to make communication wider and smarter. People have access to a wide range of reliable news about Covid-19, but there is still a minority who does not believe scientists and virologists. The problem is that there are several sources of information that present divergent opinions and create a chaos that becomes a breeding ground for conspiracy theories and fake news. Even in the 18<sup>th</sup> century, during the time of smallpox epidemic “information itself was shaped by multiple agencies, often resulting in conflicting narratives and false news. Disinformation was an inherent element of information sharing, a helpful expedient to be used in times of crisis<sup>10</sup>”. In fact, even when it seems unbiased, such as when it deals with health matters, information is hardly spontaneous. It is always designed to balance political, economic, moral or religious exigencies. The smallpox emergency was similar, but it hit different. The disease was more than a pandemic: it was a constant endemic threat with epidemic peaks, global since the 15<sup>th</sup> century. It was the disease that brought institutions to implement and enhance health measures in order to contain the infections. Indeed, Italian cities enforced the debate about smallpox and inoculation thanks to the creation of the health magistracies. These institutions had the task to coordinate information about infectious diseases in order to protect commerce. However, they were not just collaborative networks as they also created competition. In fact, spreading false news became a recurring custom to commercially damage rivals. During the

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<sup>8</sup> TAGLIABUE F., GALASSI L., MARIANI P., *The “pandemic” of misinformation in Covid-19*, (2020).

<sup>9</sup> SNOWDEN F.M., *Epidemics and Society*, p.33.

<sup>10</sup> DELOGU G., *Conflicting Narratives: Health (Dis)information in Eighteenth-Century Italy*, “Past and Present” (forthcoming: 2022).

present Covid-19 pandemic cooperation has been fairer, also thanks to international organizations and non-governmental ones, because economic interdependence is vital for the whole world. Health cooperation has been pivotal for the sake of commerce. For what concerns Italy, many public health issues have been managed by the central government, while others have been delegated to regional authorities. It could be argued that the Italian government has had a multi-level approach to deal with the Covid-19 emergency, but this has also resulted in episodes of conflict and confusion. This is because Italian regions present many structural differences with regard to their health facilities and institutional power on the territory. On the one hand, this approach has helped many regions to thoroughly tackle the health emergency. On the other hand, no uniform action was established, penalizing southern regions, which did not have the right amount of medical equipment to face the emergency. This lack of consistency is a trademark that characterizes both Covid-19 and 18<sup>th</sup> century Smallpox. Meanwhile, the most alarming similarity between Covid-19 and the Black Death is the way the public reacted. During the Black Death in the 14<sup>th</sup> century, “Jewish people appeared to be dying in fewer numbers than their Christian neighbours. Many saw this as evidence that the Jews were intentionally spreading the disease by poisoning wells, rivers and springs. As a result, Jewish people across Europe were tortured and killed. Today, Asians around the world have become the target of racist and xenophobic attacks<sup>11</sup>”. In his studies, Paolo Petro argues that fear is what drives collective aggression towards the other, the foreigner, the traveller, the beggar, the outcast, the Jew, the religious or political enemy, to finally reach the third rung on the ladder of accusations: the identification of the culprits within the community tormented by the contagion. There were many ways and means of spreading the plague in a malicious way: the devil's action committed personally or through volunteers in order to exterminate populations took on particular importance during the 17<sup>th</sup> century. Alongside the devil, omnipresent in the culture of the century, the anointed one designated by the public opinion was the political or religious enemy. During the 14<sup>th</sup> century, waves of persecution of Jews and lepers were an everyday occurrence in Europe: “in 1321 in Aquitaine there were rumours of a conspiracy between lepers and Jews to exterminate Christians by poisoning the waters [...] a violent wave of anti-Semitism preceded, accompanied and followed the arrival of the terrible scourge in European cities [...] in many cities Jews were crucified, walled up alive and burned by the angry population, who accused

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<sup>11</sup> CLAMP R., *Coronavirus and the Black Death: spread of misinformation and xenophobia shows we haven't learned from our past*, The Conversation, 2020.

them of having poisoned the wells<sup>12</sup>". Panic and superstitious attitudes also led to the belief that Jews were invulnerable to the plague and they were trying to spread it to become the rulers of the world. During the 16<sup>th</sup> century, plague infections reached their peak, giving rise to the first great pandemic of the early modern age. The fear that resulted from the latest, violent plague's outbreak strengthened theories about the devil and the witches as possible causes for the spread of the plague. Simultaneously, the plague-spreader hunt became more than a practice. All these beliefs and events gave support to the theory of the manufactured plague, which became stronger after the 1630 shock caused by the peak of infections that embroiled Milan and remained the prevailing belief until the end of the century. According to this theory, supported by many doctors and theorists of the time, the disease was only (or mainly) brought by the above-mentioned plague-spreaders: the Jews, the foreigners, the devil and his envois, and the witches. The theory was not unanimously recognised. Indeed, there were many who rejected it but "it was only during the sixteenth century that it began to be accepted that the plague could originate in one place but that only through contagion it could spread to other cities, but despite this important theoretical development the theory of the plague was still in its infancy and debates about contagion and miasmas would continue throughout Europe until the end of the nineteenth century when epidemiological research came to shed light on the nature of the disease<sup>13</sup>". Fear of the plague-spreader topped after the plague's outbreak in Milan in 1630: the disease's quick diffusion induced people to hunt those who were believed to spread the plague with poisoned unguents. Arrests, death sentences and persecutions were the order of the day in northern and central Italy. In several Italian cities, this fear gave rise to a real psychosis, resulting in drastic measures as removing holy water from churches and considering every unusual gesture as an attempt to spread poisons and miasmas. Only a few cities, including Venice and Florence, despite an initial fear, let common sense prevail and prevented their populations from suffering the horrors of trials and executions. Generally speaking, information was always conditioned by fear and ignorance about the nature of the plague. It was fear that motivated certain political choices and legislative measures aimed at influencing the collective conscience: "old minoritarian theories circulating since the sixteenth century were revived and exploited in public documents reprinted several times during the months in which the contagion raged. Fake news could thus end up being so widely accepted that it led to the scapegoating and execution of people, as

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<sup>12</sup> PRETO P., *Epidemia, paura e politica nell'Italia moderna*, Laterza (1988), pp. 7-8.

<sup>13</sup> ZITELLI A., PALMER R., *Le teorie mediche della peste e il contesto veneziano*, in *Venezia e la peste*, (1979) pp. 25-28.

illustrated by the 1630 Milanese case of The Infamous Column Edicts<sup>14</sup>”. As early as the time of the plague the ‘instrumentalisation’ of health information was already a common practice that led to tragic consequences as executions and discrimination against certain ethnical groups such as the Jews.

### **1.3 Responses to pandemics between the past and the present**

Pandemic periods are periods of fear. But they also require institutional preparedness and capacity to act quickly in order to avoid chaos. In this regard, it is useful to point out some similarities and differences about social and institutional responses to a pandemic between the past and the present. According to some authors public responses to pandemic disease are largely unchanged since the Black Death. Indeed, “disbelief of disease presence, misinformation, unclear public communication, disregard for governmental proclamations, and poor personal risk assessment were and are still common. Despite the rapid onset of bubonic plague, it often took weeks for plague infection to be recognized in a population. In 1630s Italy, physicians were ‘insulted on the streets’ for warning people about the arrival of the bubonic plague. Today, media touting COVID-19 conspiracy theories are amplified by prominent voices. Conflicting information about on-going disease has long been spread (purposely or not) by news media, sometimes at the behest of governmental leadership. In an example of wartime censorship, the Italian government forced a Milan newspaper to stop printing daily death tolls during the Spanish flu because it was too demoralizing. In the US, public health officials hid the extent of disease spread and downplayed the danger it posed<sup>15</sup>”. However, there are some tiny differences that need to be taken into account. Responses to the Plague pandemics were firstly spontaneous and unorganized. Between the 14<sup>th</sup> and 17<sup>th</sup> centuries medical knowledge about epidemics was so limited that people believed that the end of the world was near. This belief fostered the aim to abandon the places in which the disease was present. However, for those who stayed, responses to Plague ranged from cleaning the streets with water to burning infected items with aromatic agents or superstitious remedies. In recent times, the urge to flee has appeared again. In attempts to keep morale up, leaders inadvertently eroded trust in public institutions. During the Covid-19 pandemic in Italy,

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<sup>14</sup> ROSPOCHER M., DELIVRE' E., ‘*La legge e la piazza. Comunicare la legge negli spazi pubblici dell'Europa moderna*’, in Christoph Cornelissen and Paolo Pombeni, (2016), pp. 135-162.

<sup>15</sup> PATTERSON G., MCINTYRE K., CLOUGH E., RUSHTON J., *Societal impacts of pandemics: comparing Covid-19 with history to focus our response*, Frontiers (2021).

whenever the government announced a lockdown many people drove to their second houses to avoid being confined for months. Truth be told, the means of this mass departure were totally different from the outgoing movement that characterized the Plague era, as those people who escape Covid-19 lockdowns were pushed by self-interest rather than fear of contagion. The plague was mainly seen as divine punishment and for that people blamed the sinners. “Who, then, were the sinners? Suspicion frequently fell on prostitutes. In many places angry crowds rounded them up, expelled them forcibly from the city, and closed brothels. Jews were also repeatedly targeted amidst wave of anti-Semitic violence. Religious dissenters, foreigners, and witches were also attacked. All of them were guilty of offending God and bringing disaster on the faithful<sup>16</sup>”. As mentioned in the previous subchapter, in a pandemic period, certain ethnical groups are regarded as plague-spreaders. Even in the present Covid-19 pandemic we have witnessed episodes of discrimination against Chinese people, just because it is said that the pandemic has originated in a wet market in the Chinese city of Wuhan. Fortunately, the situation has not escalated for the worst but the fear of the plague-spreader has been very popular in another way: people who did not follow institutional health guidance have often been regarded as infectors. Information has become a controversial issue during the Covid-19 pandemic and the ease of disseminating and receiving information represents the main difference between the present pandemics and biggest pandemics of the past. We are immersed in news, we produce it, share it, comment on it. Most of the time we don't even ask ourselves where it comes from or whether it is reliable: the web has widened the audience of the world of information, bringing more freedom, more ‘protagonism’, more news, but also less intermediation and fewer checks on the quality and truthfulness of the information that travels the net. The result is a communication overcrowding made up of many news that come and die quickly, some of which are unverified or even invented, and rather than increasing knowledge and awareness of a given event, they end up generating social anxiety, and distorted views of reality and provoking orientations and behaviours that may have negative consequences on other individuals or the entire community. From February 2020 onwards, the arrival of the epidemic, with its abnormal (and unexpected) health, economic and social consequences has led to a growth in demand for information centred on different dimensions: from the numbers of infections, hospitalisations and deaths; to prevention and distancing measures to be observed; the methods and organisation of diagnosis and treatment on the ground; the restrictions imposed

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<sup>16</sup> SNOWDEN F.M., *Epidemics and Society*, p.63.

in the various stages of the disease. Up to the present day, we are in the middle of the third wave and we are discussing the efficacy of the different vaccines proposed and their availability.

Personal responses to this astonishing and unprecedented flow of information on one single matter have been different: from those who firmly believe in the truth of science, to those who have lost all faith in institutions and the media, to those who don't want to know any more about it, to those who react violently on social networks and in real life, right up to the conspiracy theorists. Fanciful conspiracy theories will be one of the topics of subchapter 1.5 about vaccines. However, it is necessary to state that conspiracy theories about epidemics have almost always existed, and they have grown exponentially since the arrival of the inoculation practice in Europe. In any case, the diffusion of fake news and conspiracy theories is now wider and broader. There are those who believe that coronavirus was created in a laboratory, its spread would be a deliberate attempt by a small elite to gain control of the population. Other theories argue that the virus does not exist; the real reason for the lockdown is to stop immigration or to impose a system of mass surveillance. The most conspiracy-minded believe that great billionaires such as Bill Gates created the virus to reduce the world's population or that it is an alien weapon to destroy humanity. All the great epidemics in history have been accompanied by the idea that at the origin there was a precise human will to propagate and transmit the disease. We know that the great plague epidemic of 1348, the Black Death, was attributed to the Jews and was accompanied by pogroms and the destruction of entire communities. In the seventeenth century, as Manzoni well recounts, the plague was attributed to the anointers, without distinguishing origin or nation. Cholera, which broke out in the nineteenth century, was attributed to governments who wanted to get rid of the poor. Beyond personal responses to the pandemic, it is also useful to underline similarities and differences between past and present public health responses. The need of a viable institution to coordinate disease information for commercial purposes was fulfilled in the 15<sup>th</sup> century with the first Health Magistracy created in Venice. Furthermore, Venetian rules about quarantines and special measures became norms with which ports were required to continue to have trade links with the rest of the world. Those rules were a remarkable institutional advancement: “for the first time the need for health to be kept under constant surveillance was acknowledged and sanctioned. For the protection of the population, and more so of trade, it was not enough to intervene when an epidemic broke out, rather it was necessary to carry out



daily controls and to develop an information network on global health: these were the duties assigned to the new office<sup>17</sup>”. Although they were thought to be temporary agencies, in the following centuries health magistracies multiplied in Italy and then in the whole Europe, becoming permanent institutions to monitor the health of commerce. “Their task was not to treat people, but to organize an efficient preventative system based on two cornerstones: legislation and information. Having gathered the necessary information, the health magistrates issued ordinances on matters such as inspections of people, goods and animals, quarantine protocols, the establishment of *cordons sanitaires*, and the construction of lazarettos (quarantine centres)<sup>18</sup>”. The primary goal of the health magistracies was to protect the cities from epidemics and the gathering of reliable information was the main weapon against pathogens. The construction of lazarettos introduced the most important feature to avoid contagion: quarantine. It defined a public health strategy that consists of a period of confinement of forty days. Another relevant feature were the sanitary cordons. These were “military barriers intended to protect a territory by halting all overland movement of goods, people, and therefore diseases until quarantine could demonstrate that they were medically safe<sup>19</sup>”. Thus, since the 15<sup>th</sup> century, it became clear that control and enforcement at the borders was the main feature to avoid the spread of infectious diseases. These health measures did not come from medical science, as their main purpose was to preserve commerce. Despite their non-medical origin, the quarantine and the sanitary cordons have remained strategic in the fight against pandemics even these days. However, as Snowden argued, “it is important to take into account the fact that the plague defences created some negative results. Because they were so stringent and created so much fear, they frequently provoked evasion, resistance, and riot. By causing people to conceal cases, to evade authorities, and to resist, the measures at times even had the effect of spreading the disease farther afield<sup>20</sup>”. Today, States all over the globe have used these ancient features to cope with the emergency, enforcing quarantine whenever it was needed. At the same time, States have inherited similar negative results as the European population has become increasingly reluctant to comply with the restrictive measures introduced by national government. This has inevitably led some people to criticize and question the state authority. The link between state and quarantine has changed over time and it now stems not only from the growth of bureaucratic apparatus and the state's role in public health, but also from the growing role of the state in economic and commercial life. As

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<sup>17</sup> DELOGU G., *Conflicting Narratives*, p. 5.

<sup>18</sup> NELLI VANZAN M., *Rotte mediterranee e baluardi di sanità: Venezia e i lazaretti mediterranei* (2004).

<sup>19</sup> SNOWDEN F. M., *Epidemics and Society*, p. 72.

<sup>20</sup> *Ibidem*, p. 79.

it has been pointed out early, health and trade are inseparable. In fact, one of the major vehicles for the spread of epidemics is the movement of people, animals and goods resulting from trade. Even today, the Italian regions that were first affected by Covid-19 are those that have had the greatest trade relations with China, the place of origin of the epidemic. During the first Covid-19 wave in Europe, quarantine was put into work in the whole country to tackle the unceasing spread of the virus. Those who were infected had to stay home and could not have direct contacts with other people for a period that ranged from ten days to the negative result of the tampon. In the hardest times of the pandemic, when there was still little knowledge about Covid-19, people movement was allowed only for basic needs and quarantine was the major rule. As time progressed and the scientific community made advancements, quarantine rules were softened until they were only meant for those who had been infected by the virus. Clearly, the vaccine has been the game changer.

#### **1.4 Information and vaccines**

After having pointed out the methods used by authorities to spread information about epidemics and preserve the health of commerce, it is now time to further investigate information and misinformation problems about vaccines.

First, it needs to be said that there has been a huge wave of scepticism about the Covid-19 vaccine's effectiveness. Even though the majority of the European population has already been vaccinated, there is also a considerable minority who does not rely on the scientific community and fears that the vaccine will damage them more than the virus itself. Once again, misinformation and fear are at the core of the problem. Vaccines are a very sensitive issue that is too often polluted by assumptions, suggestions and false news without any scientific basis. From 'vaccines cause contagion' to 'you don't need to get vaccinated in the summer', but also 'vaccines are not tested' or 'they modify DNA' or 'vaccines don't work'. Among the most widespread fake news is the one according to which short and long-term effects are not known, vaccines have been produced too quickly and the only information comes from the companies. Misinformation about Covid-19 vaccines has produced this kind of disbeliefs and misperceptions, but it is not the first time ever.

At the end of the 17<sup>th</sup> century, when smallpox had replaced plague as the predominant epidemic, the rhetoric we are now witnessing around Covid-19 vaccines' effectiveness was pervading the debate about inoculation.

As the world dictionary describes it, inoculation is nothing but the ‘process of producing immunity and method of vaccination that consists of introduction of the infectious agent onto an abraded or absorptive skin surface instead of inserting the substance in the tissues by means of a hollow needle, as in injection’. Lady Mary Wortley Montague, wife of the British Ambassador in Constantinople, with the support of the royal physicians Hans Sloane and Charles Maitland, popularized this solution: “in 1717, she triumphantly wrote to a friend that in the Ottoman Empire the much- feared smallpox was no longer a threat since the people were constantly immunized through a simple operation<sup>21</sup>”. The fight against smallpox then entered a new phase, in many ways more difficult than the previous one: the rest of the population had to be persuaded to undergo inoculation. The most important support came in 1722 from George Augustus of Hanover, Prince of Wales and future King of Great Britain, who agreed to “subject his daughters to preventive treatment to send a clear message of confidence in the sensational discovery. However, what seemed to be a triumphant path was interrupted by rumours and suspicions. Tensions erupted around a thorny case, which caused a stir because of the importance of the people involved<sup>22</sup>”. Indeed, when it started to be practiced in Europe, inoculation was not widely accepted: “fewer than 900 persons were inoculated in Great Britain by the 1780s and many remained unconvinced of the technique’s efficacy. Stories about deaths from inoculation were widespread, a controversial case being that of the three-year-old son of the Earl of Sunderland who had allegedly been killed by inoculation<sup>23</sup>”. Even though it is now well known that the death of the son of the Earl of Sunderland was not directly caused by inoculation, the scepticism and the fear that followed remind the present story of Camilla Canepa, a eighteen year-old girl who died after being vaccinated with AstraZeneca. The chaos that followed, driven by medias and newspapers, created a breeding ground for fear, scepticism and conspiracy theories that questioned the effectiveness and the necessity of the vaccination. In the weeks after, even Italian virologists provided different opinions about the tragic death of the young girl and there is still no agreement on whether Camilla has died because of the vaccine’s side effects or because she had an autoimmune disease, as other scholars suggest<sup>24</sup>. The debate about vaccines has intensified and it is now the main discussed topic worldwide. The number of publications about vaccines effectiveness is increasing, and National Institutes of Health and the WHO

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<sup>21</sup> DELOGU G., *Conflicting Narratives*, p. 10.

<sup>22</sup> DELOGU G., PALMIERI P., *I no vax del settecento*, Doppiozero (2021).

<sup>23</sup> HOPKINS, DONALD R., *The greatest killer: Smallpox in History*, University of Chicago Press (2002).

<sup>24</sup> ANSA Redazione, *Camilla Canepa soffriva di una malattia autoimmune*, (2021).

itself released official guidelines to distinguish what is true and what is fake news. An elevated number of publications is pivotal to tackle the spread of fake news.

This was also true in the 18<sup>th</sup> century: “After 1754, inoculation became a much-debated topic in France. Publications of all kinds—polemical pamphlets, medical treatises, moral and philosophical texts, poems, statistical analyses, countless articles in gazettes—flooded the market<sup>25</sup>”. The proponents of the method felt the urgency of responding to the violent attacks against inoculation and chose to use numbers, believing that the population would be persuaded to overcome their fears by being confronted with incontrovertible data. It was the physicist James Jurin who decided to calculate the percentage of risk for both those who were inoculated and the non-inoculated during a hypothetical smallpox epidemic. The results were more than satisfactory: “1 in 50 of the former died, while 1 in 7 of the latter. Jurin's analysis is still studied today as a brilliant and early example of the use of statistics in medicine. But it was not so convincing to the majority of his contemporaries<sup>26</sup>”. Indeed, at that time people were more familiar with the language of emotions than to that of rationality and in the following decades, “only a few hundred Britons agreed to follow this form of smallpox prevention, while the others remained wary [...] it was no better in other parts of the continent: in 1754, the mathematician and geographer Charles-Marie de La Condamine delivered an impassioned speech in Paris in favour of inoculation, claiming that the deaths of a million people could be avoided if the French accepted the practice. The text was also printed shortly afterwards and translated into other languages. With the help of famous thinkers such as D'Alembert and Bernoulli, La Condamine tried to convince his interlocutors with numbers, but the results were discouraging. The authorities of the time did not listen to him<sup>27</sup>”. A relevant and interesting European work about inoculation, and in favour of it, of that time, was with no doubt the *Tre Consulti* by Giovanni Calvi. The author put together three publications in favour of inoculation, resulting in “a book that collected sixty years of data, rumours, opinions and facts, had an encyclopaedic character and made available already existing materials, which Calvi enriched with a new interpretation through the preface and the notes which made reference to the most prominent European works that argued against or for inoculation<sup>28</sup>”. This work was relevant because it was destined to the scientific community of that time, as inoculation was not legitimized yet. Calvi pointed out

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<sup>25</sup> FRESSOZ J. B., ‘La médecine et le “tribunal du public” au XVIIIe siècle’, *Hermès. La Revue*, 3 (2015), p. 21–30.

<sup>26</sup> DELOGU G., PALMIERI P., *I no vax del settecento*, (2021).

<sup>27</sup> *Ibidem*.

<sup>28</sup> DELOGU G., *Conflicting Narratives*, p. 14.

that fear of inoculation was just caused by misinformation and he wanted to convince his colleagues and scholars of the time with empirical evidence. He wanted people to acknowledge the global scale of the problem and for that he collected data from all over the world about inoculation. He also brought examples of fake news in order to demonstrate the mendacity of the accusations against inoculation. One of them was the case of the doctor in Clermont who had his son dead after having been inoculated until the Parisian Gazette found out that no inoculation had been practiced in Clermont and the doctor and his son had long been dead. Another similarity with today's Covid-19 vaccine is that the debate about inoculation in the 18<sup>th</sup> century was not just a medical one, but it also had political and moral implications. Data and scientific experiments were not sufficient to persuade healthy people of being injected with the disease. Today, what is morally questioned is the need to vaccinate children and people who do not risk to die whenever infected. However, the difference between inoculation and Covid-19 vaccination is deep. Inoculation was highly controversial: “on the positive side, it could provide a robust immunity against a fearful disease [...] on the other hand, inoculation was a flawed procedure that involved serious risk for both the person being inoculated and the community. It was expensive and required three months to be completed. Such a complicated measure was available only to people with financial means and leisure. Furthermore, since inoculation resulted in actual smallpox, there was always the possibility that it would set off a wider outbreak or even unleash an epidemic<sup>29</sup>”. Even though it saved more lives than it destroyed, inoculation was clearly riskier than actual vaccines as a way to immunize people from infectious diseases. Modern vaccination has resulted from centuries of development and started precisely with the smallpox emergency thanks to Edward Jenner, who finally drew a line under the debate on inoculation. However, the eighteenth-century debate on inoculation stands apart as particularly meaningful for the presence of opposing sides that instrumentalised information and that were careless of the truth when determined to win the battle of ideas: “what emerges is that the eighteenth-century management of health information was anything but neutral and haphazard. Rather, it was the result of the political will to exert a more comprehensive control on society through attention to health practices and narratives [...] creators of false news could also be found among officials, merchants and diplomats [...] rumours then became manuscripts: writings whose contents and trajectories were almost impossible to keep in check. In the end, what the sources seem to suggest is that the best way to counter disinformation is not to debunk it point

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<sup>29</sup> HOPKINS, DONALD R., *The greatest killer: Smallpox in History*, University of Chicago Press (2002).

by point, but to obscure it through a more powerful and arresting narrative<sup>30</sup>”. In our society today we are faced with a real battle on the subject of vaccinations, in an ideological context where it seems impossible to remain outside the all-for or all-against in which it seems impossible to remain uninvolved in the all-for-or-all-against ‘vaccine’ sides (‘pro-vax’ vs ‘no-vax’). This issue, which in recent months has also been exploited in the political arena, has become so delicate that even those who try to express themselves in a non-ideological or instrumental manner and with reference to or instrumental manner and with reference to scientific evidence can unfortunately be placed on one on one side or the other and placed in the dock.

### **1.5 The anti-vaccination movement**

The anti-vaccination sentiment is present and alive. In this era of COVID-19, misinformation about unsafe vaccines and mutated DNA has inherited some claims from anti-vaccination and anti-inoculation campaigns that date back to smallpox. As seen before, inoculations were not widely accepted, and even Jenner’s first vaccine was victim of misinformation claims on its efficacy and safety. Several allegations against smallpox vaccines in the 19<sup>th</sup> century argued that those vaccines were going to turn people into cows. Others claimed that the vaccine would have given women stillbirths, observing that a considerable number of cows had stillbirths once infected with cowpox. Moreover since the 16th century, authorities had tried to safeguard trade by introducing magistrates and health offices. However, these efforts had not been sufficient to defend the activities of merchants: “very often the operators of flourishing European cities - such as Marseilles, Genoa, Venice or Livorno - circulated alarming information on the sanitary systems and quarantines of competing marketplaces, with the ill-concealed aim of damaging them. These blatant forms of disloyalty, largely based on the circulation of false information, helped to destabilise populations and make them distrust official information passed on by governments<sup>31</sup>”. Today’s claims are not that different. A noteworthy part of the world’s population fears that Covid-19 vaccines are going to modify DNA, triggering mutations in the progenies, cancer, autism, and other genetic anomalies. Other claims suggest that vaccines might not be able to tackle the virus at all, or at

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<sup>30</sup> DELOGU G., *Conflicting Narratives*, p. 23.

<sup>31</sup> DELOGU G., PALMIERI P., *I no vax del settecento*, Doppiozero (2021).

least for a long period<sup>32</sup>. Consequently, those people criticize the vaccination campaign and the need of booster doses. Even though the term ‘no-vax’ is quite recent, the anti-vaccine movement has existed since the invention of vaccines: “the first documented anti-vaccine group called the National Anti-Vaccination League appeared in 1866 after Britain's government tried to mandate smallpox vaccinations for its constituents. All sorts of messaging emerged from the group, including religious stances arguing that getting sick is part of God's plan, and libertarian points of view that proclaimed the government can't tell individuals what to do<sup>33</sup>”. Since the early nineteenth century, many people in England and Germany have openly spoken out against this innovative clinical practice. There were those who did so for religious reasons (preventing the onset of disease by 'modifying' the body seemed contrary to the divine will and profoundly unnatural), philosophical reasons (inoculating substances of animal origin into the human body seemed an aberration) and political reasons (vaccination, even worse if compulsory, was a violation of personal freedom that the State had no right to impose). At the end of the 19<sup>th</sup> century, movements and pamphlets against vaccines began to diffuse everywhere. Alexander M. Ross, an anti-vaccinations doctor, published a popular pamphlet in Montreal (Canada) in 1885 to criticize public health measures imposed by the government to increase the amount of vaccinations. His pamphlet contained many of the arguments we are seeing today. Firstly, there was the minimization of the disease's threat. “Ross and his anti-vaccination associates were quick to dismiss the threat of smallpox. Despite mortality rates between 30 and 40 per cent and the extreme contagiousness of the disease, it was common for anti-vaccinationists to claim that smallpox was only a minor threat to a population. Ross decried the senseless panic caused by health officials and physicians over the epidemic, claiming that smallpox was not, in fact, epidemic and that the city had very few cases<sup>34</sup>”. The minimisation of threat is a present feature even in current claims against vaccines because there are still many people who think that vaccines are actually a more serious risk than the virus itself. During these days, some individuals even threw no less than a party to get infected by the virus instead of being vaccinated. The purpose was to be infected with the virus so that their organisms could generate antibodies, as health rules in many countries (i.e. Italy) state that people who catch the virus do not need to get vaccinated. The story is clearly a product of misinformation,

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<sup>32</sup> ARTIACO I., *Quali sono le fake news più diffuse su Covid-19 e vaccini*, Fanpage (2021).

<sup>33</sup> DOHMS-ARTER E., *History shows anti-vaccination, misinformation campaigns are nothing new*, (2021).

<sup>34</sup> LARSSON P., *The misinformation used against smallpox vaccines in 19th century is being repeated in Covid-19 era*, (2020).

minimization of threat and perhaps some kind of madness. Another claim is that vaccines cause illnesses. In this regard, modern arguments have focused on the fallacious link between vaccines and autism, and an unproven correlation between the new Covid-19 vaccine and myocarditis or thrombosis. Historical arguments against vaccination were already varied and unsubstantiated as the anti-vaccinationists of the past claimed that vaccination could lead to a wide variety of diseases, from smallpox itself to syphilis, typhoid, tuberculosis, cholera and ‘blood-poisoning’. These claims were not always groundless, but their risks were consistently exaggerated: “cases had been known to occur of secondary disease transmission due to poor practice. Some physicians used arm-to-arm vaccination or used vaccine prepared from a human source rather than a bovine source. The lack of sterile cleaning between operations or the use of vaccine prepared from an infected person could lead to rare cases of secondary disease transmissions<sup>35</sup>”. However, the most astonishing similarity between anti-vaccines of the present and the past is the idea that vaccines are part of a larger conspiracy theory: “Ross’s pamphlet was adamant about the role of both the press and the medical profession in stoking fears over infection as part of a ‘mad’ campaign for gaining money, public health measures were depicted as an assault on personal rights and an overreach of government power<sup>36</sup>”. His arguments are still echoed over a century later in the current pandemic, as we see continued support of conspiracy theories supposedly designed to limit freedom and give money to pharmaceutical companies. Conspiracy theories have gained a certain reputation on social media, sometimes replacing or merging with so-called ‘denialism’ about the existence of the virus itself and the manoeuvres that would have generated it. There are arguments about viruses built in laboratories that are made to decimate the human population, masks and lockdowns to gag us, vaccines with a chip to control our consciences with 5G. These are some of the most popular conspiracy theories of our time, which science, data and history have proved to be absolutely unfounded. During the Covid pandemic, in order to bridge the physical distance, social media use has increased exponentially. While covering an emotional void, social media opened up a fruitful space to fuel and grow conspiracy theories. The pandemic has created a perfect storm for misinformation: at the same time as the virus, a propensity for conspiracy thinking is spreading epidemically. Indeed, it has now become evident that social networks are the perfect battleground for the clash between ‘pro-vax’ and ‘no-vax’ propaganda. Fortunately, some social networks have put in place safeguards to

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<sup>35</sup> LARSSON P., *The misinformation used against smallpox vaccines in 19th century is being repeated in Covid-19 era*, (2020).

<sup>36</sup> *Ibidem*.



combat fake news and help the circulation of scientific and reliable information. Even health institutions are trying to deal with fake news about vaccines by informing the population via their official websites. For example, the Italian government has predisposed a link to dismantle the fake news apparatus. The website is managed by the Health Ministry and contains a list of claims about vaccines that have been proved false and wrong. However, the spread of misinformation remains a huge problem that can only be interrupted through critical thinking about the credibility of a source and the content of the message. Misinformation about vaccines undermines national vaccination efforts as it can lead to increased vaccine hesitancy, which, in turn, reduces vaccination uptake. The Covid-19 pandemic has accelerated the process of digitisation of the society with tangible consequences in terms of how information has changed. During global pandemics of the past there was not this immediacy in the flow of information, therefore the risk of ‘fake news contagion’ was lower and less dangerous. The pandemic has raised awareness on how society’s changing due to advancements in digital technology. However, with great progress, many problems may also arise.

### **1.6 The role played by digitalization during the Covid-19 pandemic**

During the current Covid-19 pandemic, social networks have been the main channel through which news about the circulation of the virus have been spread. Even though the Internet has made the flow of information easier, it has also created the problem of excess of information, that has inevitably led to misinformation: “the unfolding of the COVID-19 pandemic has demonstrated how the spread of misinformation, amplified on social media and other digital platforms, is proving to be as much a threat to global public health as the virus itself. Technology advancements and social media create opportunities to keep people safe, informed and connected. However, the same tools also enable and amplify the current infodemic that continues to undermine the global response and jeopardizes measures to control the pandemic<sup>37</sup>”. It cannot be denied that the Covid-19 pandemic has accelerated the process of digitalization of the society, resulting in a new virtual way of living, studying, working and buying commodities. Besides the social networks’ boom, the digitalization process has enhanced many other aspects of the everyday lives of several institutions and

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<sup>37</sup> HESS S., *Social Media and Covid-19: A global study of digital crisis interaction among Gen Z and Millennials*, WHO (2021).

companies, however, with this has come the question as to whether this will benefit many firms or just a few. In other words, “whether traditional firms will be able to recover lost ground through infusing greater digitalization into their business models, or whether this will simply extend the role of the existing internet-enabled platform oligopolies. The pandemic has catapulted the need for change across a host of industries, in addition to fundamentally changing consumer behaviour, from store visits to buying online; the latter enables much more information to be gathered on consumers, further undermining the position of vendors lacking such detailed insider information and analytics capabilities<sup>38</sup>”. As a matter of fact, in the forthcoming months, small and local firms could suffer a reduction in their sales as a result of a technological and logistical gap with bigger firms. Moreover, “typified by devastating impacts on livelihoods and business performance, the COVID-19 pandemic also highlights the vast digital divide between the poor and rich, between rural and urban areas, and between advanced and developing economies<sup>39</sup>”. Therefore, digitalization comes with great opportunities but also with great challenges to avoid leaving behind a part of the world while the other has already put into work the shift. For what concerns the working environment, remote work has boomed during these years, even though many of the technologies for enabling remote working have existed for at least a decade, “most firms choose not to adopt them, or focus on a few favoured workers. The latter would reflect concerns regarding a possible loss of control, not trusting workers to exercise their autonomy responsibly, or a reluctance to cast aside proven solutions of the past. Yet whatever the level of managerial reluctance, the pandemic has forced large numbers of firms to embrace emergent technologies to shift to remote working and remote skills formation activities. In responding to travel restrictions and quarantine measures around the globe, remote working has become acceptable to multinationals that previously had been wedded to industrial-scale business travel<sup>40</sup>”. Even though the gains may be immediate and visible, there may be costs on organizations, employees, and other actors. The loss of nonverbal means of communication may impact negatively on organization and efficiency, creating misunderstandings, and reducing empathy. Also, the capacity to monitor workers’ productivity may diminish and this could give rise to suspects and tensions in the working environment. Digitalization may also damage the work–life balance, but it could help the

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<sup>38</sup> AMANKWAH-AMOAHA J., *COVID-19 and digitalization, the great acceleration*, Journal of Business Research (2021).

<sup>39</sup> *Ibidem*.

<sup>40</sup> *Ibidem*.

gender dimension. In fact, women, especially of childbearing age, often struggle when trying to balance the demands of full-time work and caring activities in the house. In this regard, remote working could facilitate the management of working life and parenthood. In addition, technological improvements might also help avoiding human mistakes and lowering the expenditures. Despite all the benefits of digitalization, there are also many impediments that are slowing down or freezing the process for several firms and countries. First of all, there are technology and digital divides between cities and rural areas and developed and developing nations that limit the spill over effect of digitalization. Then, there are also institutional constraints as institutions can create hostile conditions that may block the adoption of new technologies. The lack of government support results in a loop where a country cannot afford to enhance its educational system hence it lacks of skilled labour to facilitate the shift. Other problems concern the lack of a stable access to the Internet and the unwillingness or incapacity to invest in new infrastructures. Furthermore, there are also problems with security and privacy, as many workers feel unsecured when working from a personal computer due to the increasing concern of cyber-attacks and hackers. However, the main challenge remains the access to these digital technologies. Covid-19 uncovered the consequences of rising inequality in many developed nations, as well as the real digital divide within and between developed and developing economies. Indeed, “quarantine measures, social distancing laws, and stay-at-home restrictions adopted by governments in response to the pandemic were implemented in the absence of robust internet infrastructure in many developing economic and rural areas, and resulted in business failure, financial hardship, and other calamities<sup>41</sup>”. This happened without considering that developing economies lack the appropriate institutions and infrastructure to implement digitalization, teleworking, and e-commerce. The pandemic has definitely exposed the digital divide between countries and its effects in exasperating the inequalities between the poor and rich, but also between urban and rural areas. As Amankwah-Amoah points out, in many areas around the globe, “small businesses often lack access to reliable wireless broadband or high-speed Internet service to manage aspects of their operations. Although access to new technologies and the Internet continue to improve across the globe, all this limits the opportunities available to many businesses. Coupled with an underserved market for high-speed technologies, poverty also curtails access to opportunities for digital working. Even within developed economies, there are digital divides between major cities and rural areas where access and Internet infrastructure development differ,

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<sup>41</sup> AMANKWAH-AMOAH J., *COVID-19 and digitalization, the great acceleration*, (November 2021).

thereby shaping new-business formation opportunities. Accompanying the pandemic is also the shift away from brick-and-mortar stores to online stores leading to underutilization of physical office spaces<sup>42</sup>”. To sum up, even though it is certainly true that Covid-19 has definitively pushed the world towards digitalization, the process has not be uniform and it still presents some flaws. There is still a wide gap between developed and developing countries in the adoption of digital technologies and several powerful barriers are decelerating the process even within developed countries. The context in which digital technologies are incorporated still matters more than anything because physical infrastructures and political pressures may influence the adoption of innovations. It remains unknown whether the future will be increasingly digitalized or nostalgia would eventually strike back and bring society back to the status quo ante that characterized past pandemics. The digital transition must be fostered and guided by central governments to bring focus on developing and scaling-up technology infrastructure to improve access as well as connecting rural communities to the new digital economy: “the COVID-19 pandemic has been associated with renewed ‘statism’, the latter encompassing not only remedial interventions but also a focus on developing industrial policies for sustainable post-pandemic recoveries. As part of the post-pandemic reconstruction, it may be desirable for governments to provide incentives for firms to develop digital skills and capabilities, and to improve national physical digital infrastructures<sup>43</sup>”. Another challenge would be to spread and help developing countries in dealing with the digital transition, as those countries’ institutions often struggle to provide Internet infrastructures, phone networks and the regulation needed to guarantee a safe workspace even from remote. Moreover, the vast majority of the jobs carried out in developing countries require presence for activities such as mining, manufacturing and farming. Therefore, those countries heavily depend on developed ones for what concerns the import of technological services. The post-pandemic world must witness a shift towards an equal and cohesive spread of digital technologies.

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<sup>42</sup> AMANKWAH-AMOAHA J., *COVID-19 and digitalization, the great acceleration*, (2021).

<sup>43</sup> *Ibidem*.

## **1.7 Final comments on epidemics and information**

The purpose of this chapter has been to shed light on how information affects the behaviour of people and institutions during a pandemic. We have seen how misinformation is a problem that encompasses every pandemic period, at least since the Black Death outbreak in Europe during the 14<sup>th</sup> century. The Covid-19 pandemic differs from past pandemics that hit Europe because it has come in an era where the technological development and the digitalisation level have made information available for the vast majority of the European population.

However, the technological development has not prevented fake news from going viral. On the contrary, broader access to information has perhaps created more confusion than clearness. Since the beginning of the Covid-19 pandemic, scientists and virologists began appearing in TV shows and releasing interviews for national newspapers, sometimes giving different views and opinions about health issues concerning Covid-19. Too much information has inevitably led to chaos. In turn, chaos has generated opportunities to spread fake news about Covid-19 and vaccines.

During the smallpox pandemic, the problem of multiple agencies spreading health news was already at stake as local health magistracies often tried to damage trade rivals through false news. On the other hand, many features used by governments and international organizations to tackle the spread of the virus have been inherited from the health magistracies that dealt with the plague and smallpox. Quarantine and sanitary cordons have been vital in the fight against Covid-19.

Furthermore, the unbreakable link between health and commerce has been the driver for restrictive measures and every country has worked in this sense in order to preserve the health of commerce and avoid the spread of the virus. It is clear that restrictive measures have damaged commercial activities and the whole economy has suffered from this period. The European economy has suffered the most significant setback since the Great Depression. This will be the topic of debate for the next chapter.

## **2. ECONOMIC CONSEQUENCES OF EPIDEMICS.**

The economic crisis caused by the Covid-19 outbreak is the most serious crisis after the one in 1929 and it simultaneously encompasses the causes of the three previous recessions: “a demand crisis (like that of the 1930s), a supply crisis (like that of the 1970s, characterised by

the quadrupling of oil prices) and a financial crisis (like that of 2008-2009). It is also different from other crises because it is not caused by economic and social factors but by non-economic factors<sup>44</sup>”. The reasons of the economic and fiscal crisis that follow a pandemic lie in the measures established to stop the spread of the virus such as imposing quarantine, setting up health facilities, isolating infectious cases, and tracing contacts involving public health resources, human resources and implementation costs, but “it also involves health system expenditures to provide health facilities to infectious cases and the arrangement of consumables such as antibiotics, medical supplies, and personal protective equipment<sup>45</sup>”.

Moreover, economic shocks are a normal consequence after a pandemic’s outbreak “due to shortage of labour because of illness, rise in mortality, and a fear-induced behaviour. Other than labour shortages, disruption of transportation, closed down of workplaces, restricted trade and travel, and closed land border are reasons for the pandemic's economic slowdown<sup>46</sup>”. During the first wave of the Covid-19 pandemic, “certain industries, such as travel and hospitality, felt the pandemic's impact most directly. Shops and restaurants closed their doors altogether or opened with low seating capacity and low demand to dine in. Nonessential travel evaporated, causing massive lost revenues for not just airlines and cruise-ship operators, but also smaller businesses that rely on tourism revenue<sup>47</sup>”. The reasons why a pandemic destroys the economic system are easy to understand. A further analysis requires more understanding of the similarities that exist between past pandemics and the present Covid-19 one. This would help clarify on what extent pandemics’ economic shocks are going to affect human life. Then, it would be interesting to point out how past authorities have found ways to recover and restore the status quo, and the timing they spent to bounce back. Moreover, many studies highlight that after the Black Death, in the long-term, the European economy has recovered. Therefore, it will be worth to understand if this possibility exists also for the post Covid-19 period, as the capitalist system seems to have arrived at a point of no return. The economic recovery cannot overlook the effects of climate change, increasing world poverty and rising inequalities within and between countries.

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<sup>44</sup> CARNAZZA, P., *Gli effetti del COVID - 19 sull’economia italiana e sul sistema produttivo* (2020), p. 25–55.

<sup>45</sup> YUNFENG S., HAIWEI L., REN Z., *Effects of pandemic outbreak on economies: evidence from business history context*, *Front. Public Health*, (2021).

<sup>46</sup> *Ibidem*.

<sup>47</sup> KURT D., *The Special economic impact of pandemics*, Investopedia (2021).

## 2.1 Economic turmoil caused by pandemics: from the Black Death to Covid-19.

The Black Death, which killed approximately 50 million people in Europe, had very negative short-term economic consequences. The plague outbreak severely damaged trade and productivity, and it also led to a loss of knowledge and skills caused by high mortality: “it changed the social and economic face of the medieval system and proved to be a major event in European history. In carrying off a quarter to a third of the population, it also constituted a (grim) natural laboratory experiment, the lessons from which are still being drawn<sup>48</sup>”. Even before the Plague’s first outbreak, Europe’s total population had lowered by about ten per cent from its peak at the end of the 13th Century. The population was not only pressing in on the means of subsistence, but malnutrition and other diseases also seriously weakened it. With no immunity, it offered a breeding ground to the Plague pathogen to spread among the European continent.

However, despite the devastating short-term consequences with the astonishing number of deaths, long-term economic consequences of the Black Death were less sombre. The loss of lives wistfully led to considerable improvements for society, including “a useful reorganization of agrarian production towards greater efficiency, a significant increase in real wages, and a re-balancing of the population and available resources. Indeed, in Western Europe, the Black Death and subsequent plagues seem to have led to the establishment of a new high-mortality and high-income equilibrium, which has been the premise for quicker economic development across centuries<sup>49</sup>”.

Alfani’s analysis on the long-term effects of the Black Death puts the focus on a decrease in inequality, resulting from the increase in real wages, which in turn was caused by the high mortality rate from the plague. The labour shortage led to a consistent loss of wealth by the richest population that lasted until the 17<sup>th</sup> century, but also to a general improvement of labour conditions. The demographic collapse brought by the Black Death perhaps fostered the possibility of new economic growth. Indeed, the peculiarity is that “unlike other catastrophes, it destroyed people but not property and the attenuated population was left with the whole of Europe’s resources to exploit, resources far more substantial by 1347 than they had been two and a half centuries earlier, when they had been created from the ground up. In this environment, survivors also benefited from the technological and commercial skills

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<sup>48</sup> BELL C., LEWIS M., *The economic implications of epidemics old and new*, Center for global development, Working Paper Number 54, (2005).

<sup>49</sup> ALFANI G., *Past the virus – How pandemics shape the economy*, Institut Montaigne (2020).

developed during the course of the high Middle Ages. Viewed from another perspective, the Black Death was a cataclysmic event and retrenchment was inevitable, but it ultimately diminished economic impediments and opened new opportunity<sup>50</sup>”. According to Alfani, the Black Death triggered a renewal process in various fields, from the organization of the agricultural economy to technological innovations.

In spite of that, it would be incorrect to suppose that all major pandemics have had such effects. The reduction of inequality that followed this terrible event was specifically due to two factors: “the extremely high mortality rate, and the pre-plague institutional framework [...] when in the 17<sup>th</sup> century southern Europeans were hit by the worst plagues since the Black Death (in Italy, these epidemics led to mortality rates of 30-40%), we do not observe any of the same substantial impacts on inequality. This was presumably due to institutional changes, for example those involving inheritance, which were explicitly aimed at protecting the integrity of the largest patrimonies from episodes of mass mortality and the related waves of hereditary transmissions<sup>51</sup>”. The rise in real wages that came from the Black Death has been seen as one of the drivers of the decline of feudalism, a key moment in the rise of the northern European countries that culminated in the industrial revolution, and the move to nuclear families and women working for wages.

Other scholars disagree with the view that the Black Death also had long-term benefits and suggest avoiding putting excessive focus on the rise in real wages because at the same time “the return on capital declined (although this was a continuation of a long-term trend that began before the onset of the plague). [...] It was not until the 1600s that the signs of ‘modern’ growth appeared, due in large part to technological advances and the concomitant rises in agricultural productivity. These were unrelated to the plague<sup>52</sup>”. Both short-term and long-term economic effects of the Black Death are mitigated by climate, imperfect institutions and monetary imbalances that downplay the impact of the pandemic on the socioeconomic system, making it complicated to establish precisely what the Black Death caused.

Moreover, pandemics do not produce identical outcomes for all countries involved. In fact, in the aftermath of the Black Death, the evidence of broadly positive economic effects can be identified just for Western Europe, while peripheral countries of the continent have been hit differently: “in Spain, the plague destroyed a fragile equilibrium between a scarce population and relatively abundant resources, leading to a general worsening of the economic conditions.

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<sup>50</sup> KURT D., *The Special economic impact of pandemics*, (2021).

<sup>51</sup> *Ibidem*.

<sup>52</sup> BELL C., LEWIS M., *The economic implications of epidemics old and new*, (2005).



In other words, even the Black Death, the prototypical pandemic with ‘positive’ economic effects, had asymmetric consequences<sup>53</sup>”. Asymmetric consequences characterize all post-pandemic periods as countries generally present many structural differences in their economic systems and stages of development: the relationship between the costs inflicted on individual households and those on the society in aggregate can vary considerably across epidemics, as can that between the direct and indirect costs, and that between the long and short term effects. The historical context and demographic factors also “played a decisive role in determining the general level of economic activity during medieval times, whereas modern epidemics occur in a world with instant information, and so can affect business confidence even when the attendant death toll is small and far away. Other key influences are the nature of the disease, the duration of the epidemic, and the socioeconomic groups affected<sup>54</sup>”. It is challenging to measure the repercussions of a pandemic because every pandemic in the history of mankind is a special case. In addition to the nature of the disease, from an economic point of view the current Covid-19 pandemic is remarkably different from previous ones. Past epidemics afflicted a different economic framework, the so-called “Malthusian societies in which having fewer people meant higher incomes for those who survived. Technological change was slow and education limited: these were primarily agricultural societies that traded little and had small service sectors. The large loss of life that occurred during plague freed up land for peasants [...] Covid-19 appears particularly unlikely to offer any kind of opportunity to its survivors. Mortality is highest among the elderly, who are already often outside the workforce, suggesting no substantial change in the supply of workers<sup>55</sup>”.

Consequently, in the aftermath of Covid-19 emergency, long-term economic benefits are not going to materialize without state measures designed to reduce income inequality, insert youngsters in the job market and ensure respect for the environment. The main problem is demography. The continuous and dramatic growth of human population has led to increased urbanization that has become a breeding ground for epidemics, as was the case with Covid-19 in Wuhan, but it is also a problem for income distribution as the demographic growth often carries rising unemployment within a population.

There are scholars who argue that there is a pandemic, the Spanish Flu that broke out between 1918-19, that could be compared with Covid-19, in terms of economic

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<sup>53</sup> ALFANI G., *Past the virus – How pandemics shape the economy*, (2020).

<sup>54</sup> BELL C., LEWIS M., *The economic implications of epidemics old and new*, (2005).

<sup>55</sup> WALLIS P., *What are the long-run economic consequences of pandemics?*, Economics Observatory (2020).

consequences related to mortality levels: “Spanish influenza in 1918 broke out suddenly, spread rapidly and then petered out in less than a couple of years. They had very limited macroeconomic effects in relative terms, as the impact on aggregate mortality was relatively small. [...] sustained epidemics, or diseases that become endemic with high levels of prevalence, appear to constrain growth. Medieval Europe, for example, functioned in an endemic disease environment where outbreaks of disease came and went with some regularity, killing large swaths of the population. By the turn of the 14th Century, stagnation had set in. On the other hand, it can also be argued that the Black Death transformed medieval Europe in a positive way over the long term by undermining the economic, political and social status quo, thereby opening up new opportunities and establishing some of the preconditions for growth<sup>56</sup>”. According to Bell and Lewis, Covid-19 might follow the same path of the Spanish flu as contagion dynamics present several similarities. There is the possibility of Covid-19 becoming endemic and this could trigger a faster economic recovery. Even Alfani agrees with the comparison, believing that the economic consequences of Covid-19 could be similar to those experienced in the aftermath of the Spanish Flu outbreak. Even though at the moment the mortality rate of Covid-19 has been significantly lower than that of the Spanish Flu, the latter had a negative impact on per-capita GDP and contributed in expanding social and economic inequalities, beside rising poverty and the financial crisis outbreak that came with the Great Depression. However, Alfani is not sure on whether Covid-19 will negatively impact economic growth in the long run because “the final consequences of any pandemic are mediated in a potentially crucial way by institutions and by the policies put in place to mitigate its effects. So for example, the renewed solidarity within the European Union and the launch of the European Recovery Plan go a long way towards preventing the crisis from having asymmetric harmful consequences on economic growth. Regarding redistribution, the issue is more complex, as it seems quite possible that in this area, the negative effects of the Covid-19 crisis will be felt for years. In this case, history offers a warning to governments, which need to be prepared to manage, and possibly to prevent, the social crisis that seems sure to follow the current health crisis<sup>57</sup>”.

What is sure is that the current pandemic has not just exposed existing inequalities, but it has worsened them. Christine Lagarde, president of the BCE, is convinced that, at the end, the economic changes induced by the pandemic will be for the better, shaping our society towards inclusiveness. However, as even Alfani points out, the most controversial issue will

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<sup>56</sup> BELL C., LEWIS M., *The economic implications of epidemics old and new*, (2005).

<sup>57</sup> ALFANI G., *Past the virus – How pandemics shape the economy*, (2020).

be redistribution: there is the real chance that the pandemic, in absence of effective state measures, will widen the gap between the rich and the poor.

### **2.3 Covid-19: economic consequences**

The Covid-19 pandemic is the fourth big economic shock of the 21<sup>st</sup> century, comparable only to the financial crisis of 2008 in terms of the economic problems that followed. In the aftermath of the financial crisis many governments, especially in Europe, chose to tighten their belts rather than spend. They turned to fiscal austerity in order to cut spending as to balance their budgets as quickly as possible. The result was slow economic recovery.

According to several economists, governments had to avoid the same mistake of the 2010s to face the economic emergency caused by the Covid-19 outbreak. That is exactly what European (and more generally Western) governments have done: they have borrowed money in order to finance spending. Central banks have kept the costs of borrowing down in order to facilitate economic stability.

As a consequence, in 2021, inflation, commodity shortages and new health problems began threatening every state's economy. The pandemic has pushed inflation to new heights, especially as restrictions have rapidly shifted demand from services to goods, exceeding the supply capacity of producers. An obvious example is transport. The fear of public transport of many citizens in all countries has led to an increase in demand for cars, scooters, and bicycles. Indeed, "inflation rates tend to rise, quite simply, when households want more goods and services than firms can easily supply. And note that both fear and COVID-related restrictions have shifted demand from services to goods. Some people still fear seeing a movie in a theatre; others may dislike wearing a mask while seeing a movie. Both factors push consumers to buy home-entertainment equipment. Fear of public transportation increases demand for cars and bikes, and fear of eating in restaurants increases demand for kitchen renovations and equipment. Accordingly, from the fourth quarter of 2019 to the third quarter of 2021, inflation-adjusted household spending on services fell 2 percent, and spending on durable goods rose 20 percent. This shift in demand has contributed to overall inflation<sup>58</sup>".

The pandemic has altered people's demands, inducing them to consume more from home and invest on owned assets, and this has also affected the supply of imported goods, leading to a

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<sup>58</sup> HAUSMAN J., *COVID has broken the economy*, The Atlantic (2021).

raise in prices. The most striking case is that of computer chips. During lockdowns, more people started studying and working from home leading to a growth in demand for computers, monitors, network peripherals and home entertainment Internet devices. According to the data available on various websites, “in 2020 traditional computer sales saw a 26.1 per cent growth over the previous years<sup>59</sup>”. A year after, the demand has far outstripped the supply due to new restrictions in Vietnam and South-east Asia, as well as the trade war between the US and China and the higher prices of raw materials such as copper. According to an analysis by Goldman Sachs, at least 169 industries have been affected by the global chip shortage, with the automotive and consumer electronics industries among the most afflicted by the crisis. In the auto sector, “the sore lack of enough sensors and other electronic parts is now forcing many automakers, including in the United States, to halt, slow down, or delay production temporarily. All these can mean three things: a possibly higher unemployment rate, slower economic recovery following the pandemic, and lower vehicle production. In fact, estimates suggest that total vehicles to come out this year will be up to five million fewer than previously thought<sup>60</sup>”. Companies like Ford, Volkswagen and Jaguar have shut down factories, laid off workers and drastically cut vehicle production and “some carmakers are now leaving out high-end features as a result of the chip shortage. Nissan is reportedly leaving navigation systems out of cars that would normally have them, while Ram Trucks has stopped equipping its 1500 pickups with a standard “intelligent” rear-view mirror that monitors for blind spots<sup>61</sup>”. Several experts argue that the problems in the automobile industry could be a consequence of the rapidly increasing demand in the consumer electronics sector. Recently, the chip shortage has even pushed the European Union to elaborate a ‘European Chips Act’. As declared by Ursula Von der Leyen, the EU will try to build up chip manufacturing capacity in Europe as part of an effort to become more self-reliant on what it is seen as a critical technology. The European Commission has stated, “The ‘European Chips Act’ will bolster Europe’s competitiveness and resilience in semiconductor technologies and applications, and help achieve both the digital and green transition. It will do this by strengthening Europe’s technological leadership in the field<sup>62</sup>”. This is a demonstration of how an economic problem caused by the pandemic has enormous repercussions on the

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<sup>59</sup> AXON S., *PC sales finally saw big growth in 2020 after years of steady decline*, Arstechnica (2021).

<sup>60</sup> DOOLEY D., *4 sectors hardest hit by the global chip shortage*, Fierce Electronics (2021).

<sup>61</sup> SHEAD S. L., *The global chip shortage is starting to have major real world consequences*, CNBC (2021).

<sup>62</sup> EC, *A Chip Act for Europe*, COM(2022) 45 final (Brussels, 8 February 2022).

everyday lives of thousands of industries and millions of people, affecting the whole economy and changing world institutional policies.

Another implication for the shrink in the economy is the shortage of workers. Covid-19 further reduces the workforce because of workers who are afraid of contracting the disease at work, or do not want to get vaccinated and have therefore temporarily left the workforce or retired. And then there is the great gender imbalance caused by the pandemic. In Italy, the September findings of the National Labour Inspectorate indicated a worrying figure on the resignation of working parents, especially women, in the months of the pandemic. In 2020, almost 33,000 women left their jobs between resignations and consensual terminations validated by the Ispettorato Nazionale del Lavoro. The cause is mainly due to the fact that care work in the family is entrusted almost exclusively to them: between women aged 25-49 with children of pre-school age and women without children there is a difference in the employment rate of 74.3 per cent<sup>63</sup>. This is another confirmation of the fact that pandemics increase social inequalities.

To sum up, it can be argued that the Covid-19 pandemic has caused a combination of supply and demand shocks: “the supply shock was mainly driven by the restriction of activities due to lockdowns and distancing measures to contain the spread of the virus, causing sectors to struggle to keep up with demand, while the demand shock reflected both the income effect suffered by workers in restricted activities, as well as the diminished mobility and changes in consumption patterns due to contagion concerns<sup>64</sup>”. The main cause of the double shock that followed the Covid pandemic is the astounding and unprecedented contraction in per capita GDP that involved almost all world countries since the Great Depression: “the shock propagated through three key channels: (i) a disruption of global value chains, (ii) restrictions to international mobility, which affected economies and activities differently, depending on their exposure and preparedness; and (iii) a reduction in cross-country remittances<sup>65</sup>”. The de-growth in terms of GDP must be faced with effective economic and fiscal responses and international economic theories must definitely acknowledge that GDP can no longer be a valid indicator of a ‘healthy’ economy.

### **2.3 Economic responses to Covid-19**

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<sup>63</sup> INL, Ispettorato Nazionale del Lavoro (2021).

<sup>64</sup> YEYATI E. L., FILIPPINI F., *Social and economic impact of COVID-19*, Global economy and Development program at Brookings, (2021).

<sup>65</sup> *Ibidem*.

When the world went to lockdown, millions of businesses found themselves unable to operate with no way to pay their employees. As a consequence, governments had to respond in an innovative way by replacing missing household incomes with subsidies and grants: “the fiscal stimulus during the COVID-19 shock was almost three times the amount observed during the Global Financial Crisis<sup>66</sup>”. In the US, the Congress announced a stimulus package worth two trillion dollars, which included direct cash payments to almost every American. The British government rolled out a thirty billion pounds support scheme and in Europe’s five largest economies more than forty million workers were placed on government-funded, short-work schemes. When it comes to the post-pandemic economic recovery, it is the speed of the recovery that needs to be taken into account, as it cannot happen without strong policy changes not just by individual countries but also at multilateral levels. The impact of the pandemic has hit economies differently but some effects have been felt similarly in all countries: millions of people have lost their jobs when businesses were forced to close during the initial wave of the pandemic. Global supply chains are still severely disrupted as a result of staff shortages, many ports are clogged with shipments causing supply shortfalls and rising prices and the IMF predicts the costs of the basic food and gas will rise 4.3 per cent by the end of 2021. This period has been characterized by a clash between politics and economics and specifically between economic decisions and political decisions, mitigated by the sanitary ones: “an important dimension to understand the capacity of individual governments to cope with the pandemic is their political space. The political space is relevant to understand the interaction between lockdowns and the fiscal response. Specifically, stricter and more persistent lockdowns mean bigger downturns and stronger demands for support for household and firms<sup>67</sup>”. The lack of coordination and the lack of a global system of governance have been proper political problems in the management of the pandemic. While the WHO just helped providing some useful information about the disease’s nature, all countries responded autonomously to the emergence of new Covid variants, imposing national lockdowns and providing fiscal stimuli for the national economy. For instance, in 2020, the Italian Government and Parliament have deployed unprecedented resources to address the Covid-19 emergency. With the Cure Italy, Liquidity, Relaunch and August Decrees, far-reaching measures were adopted on Health, Labour, Liquidity, Taxation, Households and Businesses. This action continued with the subsequent 'Ristori' measures, aimed at the categories most

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<sup>66</sup> YEYATI E. L., FILIPPINI F., *Social and economic impact of COVID-19*, p. 12.

<sup>67</sup> *Ibidem*.

affected by the restrictions. For liquidity, a Task Force was set up to ensure the rapid deployment of the Government's measures to support families and businesses. In addition, the public recognition of 'Solidarity Taxpayers' was awarded to citizens who voluntarily paid their taxes even though they were able to postpone their payment. Then, "on October 27 (2020), the government adopted a €5.4 billion (0.3 percent of GDP) package that seeks to provide quick relief to the sectors affected by the latest round of COVID containment actions. Measures include grants to 460 thousand SMEs and the self-employed, and further income support for families. The government has also extended social contribution exemptions for affected businesses. On March 19 and May 20 (2021), the government approved further support packages for about €72bn aiming at extending supports for business and workers affected by the pandemic as well as kickstarting the economy. Key measures include compensating businesses and the self-employed (proportional to 2020 turnover loss), and extending the firing ban (until end-June) and the short-time work schemes<sup>68</sup>". The only international organization capable of aiding States dealing with the economic emergency has been the European Union: first "the European Commission presented guidelines for exit strategies and called for a common framework across member states. The criteria include: (i) sustained reduction and stabilization of new cases, (ii) sufficient health system capacity such as adequate hospital beds, pharmaceutical products, and equipment, and (iii) appropriate monitoring capacity to quickly detect and isolate infected individuals as well as to trace contacts. The EC also proposed a new 'emergency brake' mechanism, to be coordinated at EU level which will allow member states to act quickly and temporarily limit to a strict minimum all travel from affected countries for the time needed to put in place appropriate sanitary measures. EU member states can start issuing and using the EU Digital COVID certificate as of 1 July 2021<sup>69</sup>". EU leaders also finalized the agreement on the EU budget and Next Generation EU (NGEU) recovery package, which will provide additional spending of €750 billion in total, financed by borrowing at the EU level. The funds are split between grants and loans, which will be channelled through a special Recovery and Resilience Facility (RRF) and a top-up to existing EU budget programs. While the exact allocation of some of the funds remains to be determined, high-debt countries hit hard by the pandemic (e.g., Italy and Spain) and Eastern European countries will be the biggest net beneficiaries from the RRF. Therefore, European countries could count on financial provisions established at a multinational level. However, apart from giving some guidelines to its member States, the

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<sup>68</sup> International Monetary Found 'Policy tracker', *Policy responses to Covid-19*, (2021).

<sup>69</sup> *Ibidem*.

European Commission has not the power to interfere in State-level fiscal policies. That is why national economic responses have differed deeply across Europe.

Indeed, while public policy responses ranged different from one country to another, it is possible to detect two common features across countries: the speed and the synchronicity of the responses. Indeed, “the policy responses targeted two broad objectives: reduce the spread of the virus and strengthen the health systems; and support households and firms that faced sudden income/revenue losses due to supply and demand shortages, and the financial system to avert a spike in non-performing loans and defaults<sup>70</sup>”. The lockdowns, social distancing and quarantine helped tackling the virus but caused a huge contraction of the economy. Consequently, as already mentioned, governments had to provide a fiscal stimulus to allow households to maintain adequate levels of income “through salary subsidies, relief from contractual obligations and debt, and conditional cash transfers. Governments provided liquidity support through measures such as loans, equity injections, and guarantees to support firms. Some governments also encouraged banks to make use of available capital and liquidity buffers to support lending –at the risk of preserving nonviable ‘zombie’ firms. A sharp reduction of monetary policy rates and a sustained quantitative easing by central banks to relax borrowing conditions in financial markets complemented these policies<sup>71</sup>”. It is curious to notice that before the Covid-19 outbreak the economic recipe was austerity as countries were reluctant to overspend to address urgent environmental and inequality issues: “we were repeatedly told that ‘there is no magic money tree’. However, with the COVID-19 outbreak, such a botanical species was suddenly (re)discovered and it was found to bear fruit quite vigorously. [...] The imposition of national lockdowns triggered a series of connected and mutually reinforcing supply and demand shocks, heavily disrupting production and transportation of commodities and causing a massive fall in private consumption and investment. This created an urgent need for government and central bank interventions, which led to unprecedented increases in public spending and expansion of central bank balance sheets in certain parts of the world. As of early September 2020, global pandemic-related fiscal measures are estimated by the IMF (2020) to be close to 12 per cent of global GDP. But while the magic money tree flourishes in countries of the Global North, producing a lot of money for financial markets and particular segments of society, it is a rare species in the

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<sup>70</sup> YEYATI E. L., FILIPPINI F., *Social and economic impact of COVID-19*, p. 20.

<sup>71</sup> *Ibidem*.



Global South<sup>72</sup>”. States seem to have rediscovered the power of get into more debt to favour the financial and economic recover, but Stevano argues that, before the pandemic, such amount of expenditures was discouraged, when considered, to cope with environmental and inequalities’ problems. Governments worldwide did not pull from the ‘magic money tree’ to reduce emissions or marine pollution, and neither to lower unemployment.

Economic responses to the Covid-19 pandemic have been ruled by State intervention. However, disparity between countries needs to be taken into account when arguing about fiscal measures provided by central government to heal the economy because developed countries could do what developing ones could not even intend to do in order to help their citizens. The ‘magic money tree’ mentioned by Stevano is only available for those countries that can afford it and it “has not been used by the governments to protect effectively the most vulnerable. Although ‘essential workers’ were praised for their invaluable contribution to the tackling of the health crisis, this has not translated into wage increases or a substantial increase in spending on health and social care; in fact, essential work legislations have been used by governments across the world in politicised ways that escape universally intuitive understandings of ‘essentiality’ and have often resulted in making essential workers more disposable. At the same time, many big corporations were bailed out without any environmental or social conditionalities<sup>73</sup>”. The pandemic has unveiled new possibilities for a drastic change in the policy-making process of many countries and a comeback to the central role of the State in the economic scenario. However, it has also shown the differences and inequalities that stand between countries and unveiled a need for a further effort to tackle them.

#### **2.4 Pandemics and capitalism: is Covid-19 the disease of the Anthropocene?**

Another important finding points out that high-income countries have experienced more Covid-19 related deaths than others. This is due to the huge level of integration of people and goods along with demography, as richest countries present overcrowded cities with constant human contact between their residents. It could be said that Covid-19 is the disease of the anthropocene because the virus tends to diffuse where capitalism works to its full potential.

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<sup>72</sup> STEVANO S., *Covid-19 and crises of capitalism: intensifying inequalities and global responses*, Canadian Journal of Development Studies (2020).

<sup>73</sup> *Ibidem*, pp. 9-11.

According to many researchers, Covid-19 can be conceived as a consequence of the disruption of the natural, social, economic and governance systems: “the destruction of natural habitats and the extinction of species, the poorly regulated capture, marketing and consumption of non-human animals, the influence of lobbies to nullify or delay measures to protect natural and social systems, the limitation of current scientific knowledge and the contempt by governments and companies of the available evidence, have all worked in an orchestrated sequence to facilitate the current COVID-19 pandemic<sup>74</sup>”. This is closely linked with the global climate crisis and the rest of environmental disruptions of the ‘Anthropocene’ such as the disproportionate use of fossil fuel energy, deforestation and the conversion of natural habitats into farmland, which are among the main sources of greenhouse gas emissions, and at the same time “facilitate the emergence of new zoonosis, such as SARS-CoV-2, with a pandemic potential. Oil and timber extraction in primary forest areas involves the opening of roads in hard-to-reach areas, encouraging contact between humans and wildlife, and facilitating hunting and bush meat consumption. And at the same time, the destruction of habitats caused by these activities are the main causes of biodiversity loss, which is also associated with the emergence of infectious diseases<sup>75</sup>”. The connection is astounding: infectious diseases are an outcome of the exploitive appropriation of nature by humans. Therefore, infectious diseases such as Covid-19 are an implication of today’s capitalist behaviour, but then the capitalist system itself becomes the victim once the diseases arrives in the richest, most-highly developed overcrowded cities, causing a peak of contagion, deaths and the disruption of the economy. Human advancements often come with hidden dangers, in fact “the same factors that allow us to create food surpluses and mRNA vaccines open us up to the risk of pandemics worse than the one we are living through now. The more humans tip the world into disequilibrium, through deforestation, the destruction of biodiversity and the raising of atmospheric temperatures, the more threat to us pathogens will pose [...] Consider agriculture. Human civilisation as we know it would not have been possible if hunter-gatherers had not settled in villages. But those conditions were also ideal for pathogens to jump from domesticated animals into humans. Influenza may have evolved from avian flu while measles came from the rinderpest virus in cattle.

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<sup>74</sup> O’CALLAGHAN-GORDO C., ANTO J. M., *Covid-19: the disease of anthropocene*, US National Library of Medicine (2020).

<sup>75</sup> *Ibidem*.

Now many of us live in dense megacities perfect for the exchange of knowledge, but also perfect for pathogenic spread<sup>76</sup>". The closer contact between humans and wildlife needs to be monitored as researchers claim that outbreaks of animal-born and other infectious diseases like Ebola, SARS, bird flu and now COVID-19, are on the rise. "Pathogens are crossing from animals to humans, and many are now able to spread quickly to new places [...] some, like rabies and plague, crossed from animals centuries ago. Others, like Marburg, which is thought to be transmitted by bats, are still rare. A few, like COVID-19, which emerged last year in Wuhan, China, and MERS, which is linked to camels in the Middle East, are new to humans and spreading globally<sup>77</sup>". It is clearly not the first time a pathogen spread from natural habitats to the cities: even Ebola spilled out of the forests as a result of human takeover of natural habitats, as road building, mining, hunting and logging. But what is most worrying is that it may not even be the last. In fact, there are countless pathogens that keep evolving and could become a threat to humans. Eric Fevre, chair of veterinary infectious diseases at the University of Liverpool's Institute of Infection and Global Health, pointed out that "the risk of pathogens to jumping from animals to humans has always been there, the difference between now and a few decades ago is that diseases are likely to spring up in both urban and natural environments as we have created densely packed populations where alongside us are bats and rodents and birds, pets and other living things. That creates intense interaction and opportunities for things to move from species to species<sup>78</sup>". Further sources for the spread of such viruses are informal markets where animals are killed and sold. It is precisely from that sort of market in Wuhan that the Covid-19 pandemic started, according to the Chinese government. The market was shut down but similar ones are highly diffused in South-East Asia and Africa and represent an important source of food for millions of people, hence it might be difficult and counterproductive to close them permanently. The only weapon humanity has against the pathogens' threat is a changing behaviour towards nature, health and economics: "change must come from both rich and poor societies. Demand for wood, minerals and resources from the Global North leads to the degraded landscapes and ecological disruption that drives disease. We must think about global biosecurity, find the weak points and bolster the provision of health care in developing countries [...] Fevre and Tacoli advocate rethinking urban infrastructure, particularly within low income and informal settlements. Short-term efforts are focused on containing the spread of infection. The longer

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<sup>76</sup> PILLING D., *Pandemics and the paradox of human progress*, Financial Times (2021).

<sup>77</sup> VIDAL J., *Destroyed habitat creates perfect conditions for Coronavirus to emerge*, Ensia (2020), p. 2-5.

<sup>78</sup> *Ibidem*.

term—given that new infectious diseases will likely continue to spread rapidly into and within cities—calls for an overhaul of current approaches to urban planning and development<sup>79</sup>”. Mitigation of the effects of capitalism on nature could prevent the spread of infectious diseases through the preservation of animal habitats and natural ecosystems. The need to rethink urban planning and structural development is also at stake. A possible solution could be a reduction in imports and extraction of raw materials from underdeveloped countries and a greater focus on development aid so that these countries can afford the infrastructure needed to rethink human and man-nature interaction. At the international level, it must be acknowledged that the transmission of diseases from wildlife to humans is a hidden outcome of human economic development fostered by the capitalistic sentiment in order to provide some sort of reparation: “COVID-19 has the same origin as climate change and global environmental degradation, the biggest challenges we face as humanity. Preventing cross-transmission of viruses from non-human animal species to humans becomes another compelling reason to urgently advocate for the preservation of natural ecosystems and stop the massive extinction of endangered species [...] Markets, both food and securities, must be effectively regulated so that private profits do not become public tragedies. These solutions must be aligned with the reduction of internal and north-south inequalities, and at the same time be respectful of world diversity. If the pandemic subsides without causing an even greater global disruption, and we can all regain the precarious stability we were all living in, the real challenge will continue to be to transform our civilization into a just and sustainable society, achieving a zero level of greenhouse gas emissions no later than 2050 and this is humanity's great time trial race. The importance of the 2030 Sustainable Development Agenda is therefore paramount<sup>80</sup>”.

The pressure to rethink capitalism in a more eco-social sense is stronger than it has ever been as Covid-19 has unveiled multiple failures of contemporary capitalism. The pandemic triggered a public health crisis that rapidly translated into an economic and social crisis. This had “immediate implications for both everyday life and the processes of production, reproduction and consumption – locally and globally. And, while the exploitative practices of global capitalism and its attendant climate crisis have been explored in rich scholarship across disciplines, the pandemic suddenly presents these through a magnifying glass dramatically amplifying them<sup>81</sup>”. The current pandemic has exacerbated inequalities and all the flaws of

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<sup>79</sup> VIDAL J., *Destroyed habitat creates perfect conditions for Coronavirus to emerge*, (2020), p. 6-7.

<sup>80</sup> O'CALLAGHAN-GORDO C., ANTO J. M., *Covid-19: the disease of anthropocene*, (2020).

<sup>81</sup> STEVANO S., *Covid-19 and crises of capitalism: intensifying inequalities and global responses*, (2020).

contemporary and past capitalism. The demand and supply crisis that followed the health crisis have come alongside a quest for less exploitive behaviour towards the planet's natural resources. The problem is that the demographic growth of the world's population makes the rethinking of capitalism harder than it should be: "the world's population has never been as large, nor commerce so global, nor peace so widespread. At the same time, we're abusing our most effective tools against disease—misusing antibiotics by feeding them to farm animals in bulk; leaving our children unvaccinated; funding research on new bioweapons while underfunding new vaccines, treatments, and cures; and letting weak medical systems fester in the world's poorest countries. And our reaction to disease too often echoes that of our distant forebears; at a time when global human interaction is central to our wealth and welfare, we call for flight bans and trade restrictions. Globally, we respond to new infectious threats too late. We don't prepare and we don't coordinate. [...] The extent of disease has always shaped economic and social relations. Pandemics from centuries ago still help determine wealth and poverty, democracy and autocracy to this day. But the last half-century clearly demonstrates that not all trends are inexorable. The tragedy of Covid-19 helps illustrate the utterly different world we've become used to living in<sup>82</sup>". As a matter of fact, despite the significant transformations of globalised contemporary capitalism through finance and technological progress, the Covid-19 pandemic is a striking reminder that human activity is "intrinsically material and embedded in the socio-economic and biophysical basis of production and reproduction [...] The failings of global capitalism as a system fundamentally built on the material exploitation of nature and of gendered and racialised global working classes have been vividly foregrounded<sup>83</sup>". Cooperation and sustainability must be the two key elements to rebuild capitalism from the ground. Geopolitical conflicts with consequent arms race take away a lot of capital that should be invested in health development against infectious diseases, cancer, and climate change. However, this would require a huge effort by each one of the most developed and powerful states in order to foster a more cohesive approach towards the fight against infectious diseases, climate change, inequalities and poverty, a fairer redistribution of wealth, development aids for those countries that lack of structural and institutional capabilities, and fiscal support to tackle unemployment within developed countries. Covid-19 has uncovered all capitalism's flaws. The starting point to change the world for better may be the sanitary recovery from the pandemic.

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<sup>82</sup> KENNY C., *The Plague cycle: the unending war between humanity and infectious disease*, The Forum Network (2021).

<sup>83</sup> STEVANO S., *Covid-19 and crises of capitalism* (2020).

## 2.5 The Covid-19 pandemic, capitalism's flaws uncovering and a possible turning point

The recovery from the pandemic is only the first step of a system change that must bring more support in the fight against climate change and greater incisiveness to cope with existing and rising inequalities between and within countries: “the pandemic has exposed some of the rawness of our capitalism: the inequalities. It has shown the strength of the private sector in being able to produce the vaccines so quickly, but also the weakness. They still can't produce enough vaccines to protect the rest of the world, and we're going to be hit by another wave, potentially coming from some developing country where the disease hasn't been controlled<sup>84</sup>”. Global inequalities were also seen in the distribution of vaccines, as poorer and developing countries were able to obtain fewer doses of Covid vaccine. That is just another consequence of capitalism: those countries that have more capital can get what they need first than the others, even for what concerns a disease that involves the whole world population. The forthcoming challenge is to raise awareness of social justice and income distribution as the market-driven economy has proved careless about those problems. As Hervé Berville points out in an interview for ‘The New York Times’, the pandemic has shown that the world is made of inequalities and those who are in the position of helping developing countries are not doing enough to make the world suitable and liveable for everyone: “We have seen that countries in Europe and North America have been able to run up billions and billions worth of debts and introduce vast recovery plans. And yet we were incapable of coming up with solutions for emerging economies. We had to impose a moratorium on their debt, and they had no access to financial markets — when they were the ones who needed the most help. Only 2 per cent of the population of those countries are vaccinated, whereas in European countries, we're at 80 per cent vaccination rates, and talking about administering a third vaccine dose. The capitalist system today is not correcting imbalances, it's reinforcing those imbalances<sup>85</sup>”. Globalization and free markets have brought wealth for millions of people but there has not been wide success in the reduction of world poverty and inequalities.

As already mentioned, the pandemic has exacerbated the situation and the structural differences between the West and the rest. Over the last decades, governments have pushed for minimal taxation that has allowed multinationals and foreign investments to prosper. The

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<sup>84</sup> NAYERI F., *Yet another Covid victim: Capitalism*, The New York Times (2021).

<sup>85</sup> *Ibidem*.

victims of the capitalist system have been the poorest populations that could not follow this pattern because of structural and institutional inadequacy, alongside the composition of their economies that rely almost completely on primary sources and raw materials. There has been insufficient investment in human capital, just as much as scarce awareness of natural disasters provoked by the exploitation of resources, deforestation and consequences of gas emissions in the atmosphere. It has been taken for granted that financial capital would have boosted a country's human and natural capital. This has led to "underinvestment in training, education, health and the protection of biodiversity – on the part of governments, but also on the part of international institutions [...] the mistake in economic development strategies was to assume that one size fits all: that the same formula would work in completely different countries<sup>86</sup>". The present situation could be summed up by the words of Tim Jackson and Peter Victor, who in May wrote an interesting article about post-pandemic recovery and the future of capitalism. The Covid-19 crisis has exposed and highlighted all the structural deficiencies that pervade late-modern capitalism. Even before the pandemic struck, "there was an increasing precarity at the heart of society. Its most devastating impact was on precisely those services that turned out to be critical for prosperity. Nurses, carers, cleaners, distribution and retail workers, and teachers: the frontline workers were both the first line of defence against the virus and those who bore the brunt of its impact. But these women and men were also those whose livelihoods and working conditions had become increasingly insecure in the preceding years<sup>87</sup>". Their analysis of the situation proves useful in explaining the roots from which the current economic scenario has arisen, which date back decades before the financial crisis. Taking inspiration from Piketty's book 'Capital in the 21<sup>st</sup> Century', the authors claim that rising inequality is an unavoidable consequence of a declining economic growth rate, but at the same time it does not represent an inevitable outcome because "the progress of inequality depends crucially on the institutional context within which a decline growth rate takes place<sup>88</sup>". Therefore, the context matters. The authors end their analysis by speaking of two different possible futures for the capitalist system: hyper-capitalism and proto-socialism. The former characterized by "a constant savings rate and high substitutability between capital and labor lead to accelerating inequality, even under a progressive combination of redistributive measures" and the latter by "a declining savings rate and low substitutability between capital

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<sup>86</sup> NAYERI F., *Yet another Covid victim: Capitalism*, The New York Times (2021).

<sup>87</sup> JACKSON T., VICTOR P. A., *Confronting inequality in the "new normal": hyper-capitalism, proto-socialism, and post pandemic recovery*, Wiley Online Library (2021).

<sup>88</sup> *Ibidem*.

and labor, lead to declining inequality, which in combination with progressive redistributive policies, have the potential to eliminate inequality almost completely<sup>89</sup>”. According to their theory, proto-socialism could work well for the post-pandemic recovery, even with declining growth rates. This because the system would step away from resource-intensive mass production processes and towards a more qualitative economy in terms of services. However, this system would require reshaping firms’ regulations and policies of redistribution, with an active role by the government to provide some substantive institutional innovation. The idea is ambitious, but it seems unlikely to have governments moving away from the economic growth theory towards a more socially inclusive world. Even the OECD released a report that challenges the theory that economic growth is always good for everyone. On the same line many economists and authors as John Perkins “make an argument for transitioning from a ‘Death Economy’ to a ‘Life Economy’ that cleans up pollution, regenerates devastated ecosystems, recycles, and develops technologies that restore resources. And in April 2020, 170 Dutch academics put together a five-point manifesto for economic change based on de-growth principles, while New Zealand introduced a federal budget that prioritized quality of life over economic growth. The concept of de-growth is focused on ecological goals and defines new metrics of economic progress. This has the potential to create a paradigm shift from a focus on GDP growth to a new system that prioritizes human well being, environmental sustainability, and economic resilience<sup>90</sup>”. The hope is that the post-pandemic crisis would change capitalism towards better conditions for workers and those in greatest needs, and the de-growth paradigm might actually being the correct answer. Indeed, it is now widely recognized that continuous economic growth does not automatically reduce inequality. That is why the effort must be put on social enhancements and restoration of natural habitats with the stop of massive exploitation of lands and resources from which the most developed countries are those that gain the most.

Anneken Tapp has imagined three ways in which the pandemic could change capitalism forever: the first one is a ‘new social safety net’, a completely revised welfare state in harmony with workers’ needs: “better designed unemployment benefits, programs to help people back into the workforce and more affordable housing could help ease the burden of this crisis for the weakest members of the economy<sup>91</sup>”. This view would prioritize workers’

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<sup>89</sup> JACKSON T., VICTOR P. A., *Confronting inequality in the “new normal”* (2021).

<sup>90</sup> RUSSEK H., THORNTON J., ELIAS D., *Rethinking capitalism in a post-pandemic world*, Brookfield Institute (2021).

<sup>91</sup> TAPPE A., *Capitalism isn’t working anymore. Here’s how the pandemic could change it forever*, CNN Business (2021).



rights making people's lives more viable. The second one involves problems stemming from the globalization and automation in the manufacturing sector: "in today's capitalism, money is, for the most part, considered more important than the workers: if moving jobs elsewhere, or using robots saves dollars, it's done [...] the pandemic has provided a real-life example that robots don't get sick, but human workers do. Welfare is not only about benefits. It also extends to education and health care. In a world where machines increasingly take over people's jobs, educating the next generation so their skills match what's needed is important<sup>92</sup>". The third one concerns one of the most controversial economic concepts: the debt. Here, Tappe argues that in the post-pandemic world, policy makers will either have to accept living with enormous debt burdens or address a complete overhaul of the system in place. According to several scholars, the post pandemic recovery will inevitably lead to an increase in state intervention, in a similar way to that seen during these years. In fact, governments have taken an active and direct role in their economies by bailing out firms, providing loans and subsidies, and increasing their ownership of assets. Indeed, "governments are also increasing ownership indirectly through their sovereign wealth funds, increasing their investments in the health, tech, real estate, and travel industries. In Portugal, the government bailed out the flagship carrier TAP Air Portugal, while in Germany the government made a US\$9.8 billion capital injection into Lufthansa<sup>93</sup>". State capitalism could be the future for the post-pandemic economy, as states are the only actors within the international community that own the political and economic power to overcome the crisis. The neoliberal ideology that has permeated the recent decades confined the state as a mere fixer of market failures, but the Covid-19 pandemic has overturned the rule. The exposure and scale of state intervention have increased exponentially during the pandemic, both in terms of the rediscovery of fiscal incentives and of new forms of monitoring pioneered via public health interventions. Now it seems impossible to overlook the active role that the state plays in the capitalist system, but at the same time the gap between states is widening. Yet, "whilst wealthier states have been able to mobilise (re)discovered 'fiscal space', poorer states face multiple constraints. Indeed, although the effectiveness of managing the public health crisis has varied significantly across countries, giving rise to complex geographies of inequality, the COVID-19 crisis risks perpetuating (if not aggravating) Global South-Global North structural divides. This is emblematic in the exposure of vaccine inequities triggered by countries in the Global North

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<sup>92</sup> TAPPE A., *Capitalism isn't working anymore. Here's how the pandemic could change it forever*, (2021).

<sup>93</sup> WRIGHT M et al., *The return of State capitalism? How the Covid-19 pandemic put the liberal market economies to the test*, LSE Blog (2021).

hoarding vaccines and blocking their wider production and distribution<sup>94</sup>”. The vaccine is the clearest example of capitalism’s inequalities. States and International Organizations have managed the distribution of vaccines in the Global North, while in the Global South the vaccination campaign has not yet taken off (after two years since the pandemic outbreak). According to the latest data available from the Our World in Data platform, only eight countries exceed 20 per cent of those vaccinated, while more than 20 - more than a third of the total - fail to reach or come close to 10 per cent of the population fully immunised. Less than 1.6% of the African population was fully vaccinated, with a double dose, 18 months after the introduction of the Covid-19 vaccination<sup>95</sup>. This low percentage of vaccinations increases the risks of the emergence of mutant strains that could undermine the effectiveness of existing vaccines, the researchers warn. Limited storage and delivery capacity, inadequate staffing and poor health infrastructure also likely contributed to hindering more widespread dissemination. As it has already been stated many times in the course of this work, the pandemic has exposed and worsened existing inequalities within and between countries, and the vaccine is a landmark of structural and institutional mismatches between developed and poor countries. The incoming global challenge should be to tackle these inequalities and reduce the gap between the West and the rest, but the global distribution of vaccines seems to contrast with this. According to a new analysis by UNICEF, G20 countries received 15 times more doses of COVID-19 vaccine per capita than sub-Saharan African countries. The survey, conducted by the scientific analysis company Airfinity, reveals the severity of inequality in access to vaccines between high-income and low-income countries, especially in Africa. African countries have been largely left without access to COVID-19 vaccines. “Less than 5% of the African population is fully vaccinated, leaving many countries at high risk of further outbreaks. The trouble is that inequality in access to vaccines is not just holding back the poorest countries; it is holding back the world as a whole. An unresolved issue is the liberalisation of patents on vaccines by pharmaceutical companies. Allowing vaccines to be manufactured by local manufacturers could in fact guarantee immunisation coverage better than any centralised distribution plan<sup>96</sup>”.

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<sup>94</sup> FRANZ T., DAFERMOS Y., VAN WAEYENBERGE., *Covid 19 and crises of capitalism: intensifying inequalities and global responses*, Canadian Journal of Development Studies (2021).

<sup>95</sup> AGI Redazione, *In Africa è completamente vaccinato meno dell'1.6% della popolazione*, Agenzia Italia (2021).

<sup>96</sup> ALLEA, *Statement on Vaccination bottlenecks in the global south and a patent waiver for COVID-19 vaccines* (2021).

According to pharmaceutical company executives, however, the liberalisation of patents alone would not solve the problem: production facilities would have to be set up, staff would have to be trained, and technology and skills would have to be transferred. Until now, global vaccine production has been concentrated between the US, China, India and Europe, and it is there that most of the world's doses have been administered<sup>97</sup>. Investment in distributed vaccine production, however, could be of strategic importance not only for getting out of this pandemic, but also for the future. To ensure protection against Covid-19 we may need to update the vaccine as new variants emerge and administer it again in the coming years.

Moreover, humanity may have entered in another dangerous era of pandemics and in addition to Covid-19 in the coming years and decades other potentially pandemic viruses could arise, especially if we do not reduce the erosion of ecosystems, biodiversity, deforestation and wildlife trade. Therefore, the vaccine's distribution should be the starting point to start facing global inequalities and rethink capitalism in a more eco-social way.

### **3. PANDEMICS AND PARADIGM SHIFTS**

Over the centuries, pandemics have been shaping human history as no other events could do. Even though they hit different places at different times, the three plague pandemics and Smallpox changed the economy, demography, social life and health management of the European continent. As it has been discussed in the previous chapter, health measures such as quarantine, lazarettos, social distancing, etc. are a product of centuries of facing and dealing with pandemics. Simultaneously, post-pandemic periods have always been characterized by structural changes that have affected the economy and society. At the end of the 14<sup>th</sup> century, the Black Death gave a final blow to an already tragic situation. The disease led to a demographic collapse that caused the reduction of workforce, labour costs rise, and production and consumption fall, inducing the crisis of the feudal economy (also damaged by wars and looting). The crisis of the economy was triggered by the workers' revolts and consumption collapsed. Simultaneously, a cultural paradigm shift emerged with the crisis of geo-centrism. God was no longer alone at the centre of the world because a new centrality of the man was theorized. The Plague had a series of consequences that resulted in social and

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<sup>97</sup>ALLEA, *Statement on Vaccination bottlenecks in the global south and a patent waiver for COVID-19 vaccines* (2021).

demographic damage. In the first few centuries of the millennium, important agricultural and nautical innovations had taken place. The disease killed many people, but it also brought about a sort of social and economic levelling, with a decrease in the labour force. People could ask for more money to work, many people with large estates died and there was a redistribution of wealth. The plague waves in Europe lasted until about 1700 and these crises caused a social selection favourable to the improvement of cultural innovations and the creation of political-administrative institutions that served for the collection of information on the circulation of the plague, but also for the management and governance of society, for which the modern bureaucracy was born. There was ultimately a process of social efficiency. It is quite true that in England and Northern Europe the waves of the Bubonic Plague, which indirectly caused wages to rise and favoured specialisation, contributed to the end of feudalism, the birth of the bourgeoisie and of trade. Also the Protestant Reform, with its focus on the needs of local communities, was favoured by the health context characterised by epidemic threats. The paradigm shifts induced by the smallpox pandemic in Europe mainly concerned mass vaccination and its effects. It can be argued that smallpox gave rise to a health revolution thanks to the development of inoculation and then Jenner's vaccines. However, one tragic and dramatic outcome of the smallpox pandemic was its unintentional contribution to the slaughter of the Aztecs and other native populations in the Americas. The disease was eventually brought in the continent by the Europeans and decimated the population of Tenochtitlan, proving decisive in the city's surrender. Smallpox, alongside other diseases, contributed to the birth of overseas empires. Consequently, it facilitated the establishment of the Atlantic triangular trade, permanently changing the world economy and accidentally boosting globalization of trade networks.

### **3.1 Covid-19 paradigm shifts: remote working**

A complete different set of paradigm shifts might be the outcome of the current Covid-19 pandemic. The spectrum of shifts will include individual and collective, social, professional, and industrial changes. Economic interdependence has never been that deep and wide during a pandemic, and the world has never met this level of complete interruption. It is difficult to point out possible long-term shifts, but we might find some indications in the current period as many short-term effects include the introduction of distance learning, smart working and an exponential growth of e-commerce: "whereas the short-term effects have been felt and

recognized by many, resulting paradigm shifts caused by the pandemic will likely have long-term effects of unknown scope and impact. In time, the implications of these demands may not only shift but have a lasting effect on the way organizations and employees function, resulting in a new normal<sup>98</sup>. In this ‘new normal’, the first paradigm shift may concern the labour market and the working environment. At the very beginning of the pandemic, almost all businesses closed their offices and left their employees working from home. ‘Smart working’ has now become a diffuse practice and many companies have decided to keep it despite the end of the emergency and the advent of vaccines and the subsequent ‘Green Pass’ system that allows European workers who have been vaccinated (or healed) to go to the office. In Italy, before the coronavirus emergency, smart working seemed to be a solution for the few. As a research by the Milan Polytechnic Observatory shows, ‘Smart Working’ was only the prerogative of large companies. Small and Medium Enterprises and the Public Administration were far from having achieved a significant percentage of employees in agile working. Moreover, more than half of Italian SMEs were not interested in adopting Smart Working tools, while almost 40% of the Public Administration thought that working remotely was not that useful. The Milan Polytechnic also reports that even after the harshest wave of the pandemic 5.35 million Italians will continue with smart working, especially in large companies and public administration. Among the critical issues are the technology gap and work-life balance, but 3 smart workers out of 4 believe their effectiveness has improved<sup>99</sup>. Indeed, smart working has brought many benefits as the absence of transfer costs in terms of both money and time to travel to the workspace and, consequently, fewer harmful gas emissions. However, smart working reveals all the inequalities that characterize the gap between developed and developing countries, but also within them, as many citizens cannot afford the appropriate technology to work from home. Moreover, as it has been discussed earlier in this paper, the continuously increasing demand for personal computers, tablets, scanners, printers, and other technological processors has risen so fast to cause a shortage of raw materials needed to produce those devices.

Nevertheless, stay-at-home orders, lockdowns, and quarantines forced workers into unemployment in record numbers, particularly in industries where remote working was not feasible. “Whereas these unemployment figures are significantly down from the initial spike of pandemic-related unemployment claims, unemployment claims are still over double the

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<sup>98</sup> HOWE D., CHAUHAN R., SODERBERG A., BUCKLEY R., *Paradigm shifts caused by the Covid-19 pandemic*, NCBI (2020).

<sup>99</sup> CORSO M., *Lo smart working ai tempi del coronavirus*, Politecnico di Milano (2020).

pre-pandemic figures [...] whereas some industries have begun to rebound, rather than a simple a return to the status quo, the recovery will be driven more by consumer behavior and demand than by a simple desire to return to normalcy. Indeed, many industries such as travel, entertainment, and restaurants continue to suffer as the pandemic draws on. Organizations such as Disney and major U.S. Airlines have announced layoffs of nearly 30,000 employees each. Individuals and organizations are being forced to recognize that things like temporary unemployment assistance cannot substitute for industries where employment depends upon people's willingness to closely cluster with others or travel. These entertainment, sports, concert, airline and restaurant industries and others are being forced to relearn how to be profitable in this new environment<sup>100</sup>". There are also companies who have definitely made a step forward during the pandemic. Among these, Amazon stands out predominantly. Between January and October 2020, Amazon added 427,300 workers to its global workforce, which has now reached the population of a small European capital with its 1.2 million employees, not counting the hundreds of thousands of drivers who are not employed by the company. These are unprecedented numbers for a US company, according to the New York Times, barely comparable to the mass hiring of heavy industry during World War II. Amazon's expansion during the first year of the coronavirus pandemic was one of the most visible phenomena in the global economy and it is just the more noticeable outcome of the predictable expansion and diffusion of e-commerce. Lockdowns and restrictions on business and travel have caused e-commerce to grow everywhere, particularly in countries like Italy where it was not particularly developed, and companies that had previously held hegemonic positions, such as Amazon, have benefited from this trend.

In any case, the future of remote working is still uncertain. Experts have very different and sometimes polarised opinions on the subject. Those who oppose remote working argue that the practice of working from home has severely impacted on mental health. In a global study conducted by SAP, Qualtrics, and Mind Share Partners, "researchers surveyed more than 2,000 employees in March and April of this year in Australia, France, Germany, New Zealand, Singapore, the UK and the United States. They found that the pandemic is impacting mental health around the world. Over 40% of people said their mental health has declined since the COVID-19 outbreak. In that same time period, the number of people who describe the state of their mental health as a 3 or less on a 10-point scale has doubled. Workers report more anxiety and stress. Another study conducted by Udemy of over 1,000 U.S. employees

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<sup>100</sup> HOWE D., CHAUHAN R., SODERBERG A., BUCKLEY R., *Paradigm shifts caused by the Covid-19 pandemic*, NCBI (2020).

found that 89% are afraid of COVID-19 in the workplace and their fears have compromised their job performance. The survey found that the worry spikes correlated with increases of new COVID-19 cases. According to a study of over 1,000 remote employees by Twingate, remote employment is causing workers to lose a sense of work/life balance during the pandemic<sup>101</sup>”.

The main issue appears to be this lack of work/life balance, which is undermined by working home due to the noises and distractions that can come from other household members. Moreover, virtual meetings are inevitably more stressing for an employee who is accustomed to physical presence. Sitting in front of the laptop for hours may cause headaches, exhaustion, and even some sort of irritation. All these can have a negative impact on motivation. Another main problem is the lack of face-to-face communication among colleagues: “in the office, it’s so easy to approach any colleague whenever you want to discuss something in person. While video conferencing can be a solution, it can never be as effective as talking to someone who is sitting right next to you. The absence of proper communication among remote teams is likely to act as a roadblock for effective team collaboration<sup>102</sup>”. Indeed, physical presence is completely different and can be more confidential, or at least more sincere, as it involves a huge degree of body language in the way of expressing a concept or a task.

Lastly, there is also the problem of owning the adequate technology to work from home. This do not seem to be a problem in the West, as the vast majority of workers owns a personal computer, a printer, and internet connection. However, the poorest might need some economic aid by their companies or the government in order to afford working from home facilities and devices. In developing countries, remote working is not available for everyone and a wide range of jobs that are carried out there require physical presence and abilities.

On the other hand, there are also some positive outcomes that come from remote working. One of those is the relaxation of the hectic modern lifestyle according to a survey conducted by YouGov for Evernote: “as the pandemic continues to unfold, 48% of Americans are living life at a slower pace since social distancing began and 51% are broadening the definition of productivity to not only work, but projects at home such as cooking or home improvement<sup>103</sup>”. Indeed, enhanced productivity has been noticed worldwide.

Several companies seem to be satisfied by remote working and many will continue to allow it even after the pandemic period. A blended mode involving both presence and remote working

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<sup>101</sup> ROBINSON B., *Is working remote a blessing or a burden? Weighing the pros and cons*, Forbes (2020).

<sup>102</sup> KASHYAP V., *Pros and cons of working remotely that you should know*, ProofHub (2021).

<sup>103</sup> ROBINSON B., *Is working remote a blessing or a burden? Weighing the pros and cons*, (2020).

might be the answer everyone is looking for. This more fluid approach, known as the hybrid model, could be adopted by many employers and fostered by several firms because “rather than forcing workers to choose whether they want to work remotely or in an office, a hybrid approach gives workers autonomy to decide the work location that suits them best – with the acknowledgement that it could change. They may choose to work in the office every now and then or from their homes a few days per week. It’s not rigid and allows for plenty of flexibility. For that reason, a hybrid approach is what many employers are working toward, with companies like Ford and Spotify already rolling it out. Research from McKinsey found that nine out of 10 executives envision a hybrid model moving forward and employees seem to be on the same page, with 52% of workers saying they’d prefer companies to adopt a more flexible working model after the pandemic<sup>104</sup>”. It would be interesting to notice if this hybrid approach will continue to bolster productivity. Thinking about it logically and from a worker's point of view, the possibility of alternating between presence and remote work could make a job more dynamic and result in more motivation. “The majority of studies show that employees have positive reviews of how employers handled the hasty shift to working remote. A Glassdoor study showed that 70% of respondents felt that their employer responded to employee concerns about health and safety matters. Another 60% said they can perform effectively no matter how long they have to WFH and 50% say they are as or more productive remote working. Close to 99% of respondents to a Korn-Ferry study reported that their employers are showing empathy toward staff. Another 85% of those respondents also feel that their employers are doing a good job of communicating and informing staff about the company’s situation and ongoing response to the pandemic. A study by Citrix found that 45% of workers believed employers were ‘fairly ready’ for the transition to working remote, and 38% said the transition was ‘fairly easy’. A survey of more than 11,000 full-time workers by Reflektive, found that HR departments were most likely to feel unproductive and overwhelmed and customer success teams reported the lowest engagement; however, two positive areas emerged in regard to how companies handled the pandemic shift to remote working: 91% of employees felt supported by their managers during the shift. 92% of respondents strongly felt that their companies took appropriate measures to address the situation<sup>105</sup>”. All those studies certify that remote working will remain a feature for companies over the next decades. The Covid-19 pandemic has triggered a practice that has been deeply foreseen over the last decade. Remote working might also have some benefits for workers’

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<sup>104</sup> BOOGAARD K., *4 predictions for the future of remote working*, (2021).

<sup>105</sup> ROBINSON B., *Is working remote a blessing or a burden? Weighing the pros and cons*, (2020).



physical well being as many lament that having the exact same routine every day deprives them from having balanced meals and eat healthy. Working from home allows to get rid of the work routine of getting ready early in the morning, as a worker could just open the laptop from home while having breakfast in pyjamas. As a result, “you save a considerable amount of time and utilize it to maintain a healthy lifestyle. You can cook and eat nutritious food and even involve yourself in multiple exercise sessions throughout the day. Moreover, it is also possible to take short breaks between work and do some physical activity like taking a brisk walk, etc. to keep yourself healthy<sup>106</sup>”. Another positive feedback might come from the environment. Indeed, working from home can decrease the number of vehicles on the streets and slightly cut down emissions. This will impact positively on savings as well as the cost of maintaining a car is one of the major costs a worker needs to bear. It is also true that big cities allow people to use different transports and many restaurants rely on workers’ lunch breaks for a great part of their daily earnings. Therefore, it is still to be seen whether remote working will benefit the economy as a whole or not. Roger Neel, Co-founder and CTO of Mavenlink believes that “for better or worse, this period of uncertainty and major change is likely to make a lasting impact on the way different companies interact with one another and the ways in which organizations operate. With distributed teams, things like a lack of communication, security concerns, training and on-boarding challenges, and burnout are more pronounced. As remote work becomes more of a new normal, we'll see these challenges rise up the priority ladder for organizations trying to grow and move forward in this new paradigm. How companies manage these challenges today will be very telling for their prospects tomorrow<sup>107</sup>”. All things considered, “the research and expert predictions seem to point to a future where the focus is on what work is getting done – and not where or when it’s getting done. That’s more than a logistical change. For many organizations, it’s a culture shift that will emphasize results over hours, employee productivity and wins over whereabouts<sup>108</sup>”. Looking at the advantages and disadvantages of working from home it seems that the advantages outweigh the disadvantages and that the pandemic has opened our eyes to a way of working that can bring both more productivity and less stress for workers (the hybrid approach). The same cannot be said for schools and universities, for which presence continues to be crucial. Distance learning has not been nearly as successful as distance working and has

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<sup>106</sup> BOOGAARD K., *4 predictions for the future of remote working*, (2021).

<sup>107</sup> ROBINSON B., *Is working remote a blessing or a burden? Weighing the pros and cons*, (2020).

<sup>108</sup> BOOGAARD K., *4 predictions for the future of remote working*, (2021).

produced more problems than it has solved, bringing to light systemic and management problems that date back decades of indifference to students.

### **3.2 Covid-19 and paradigm shifts: distance learning**

In this subchapter, the geographical area examined will be Italy, also because the author of this thesis was personally involved in the dynamics and problems caused by distance education. The emergency linked to the spread of the Coronavirus has had cascading effects on the society as a whole. Since the first lockdown in 2020, schools and universities have moved their lessons from school desks and physical presence to distance learning and remote presence in order to contain and limit the spread of the virus. Distance learning is a form of teaching that takes place without the presence of teachers and students in the classroom, using instead electronic or online tools. Online education is one of the most debated issues today because, besides having proved to be a fundamental tool for not stopping lessons during the lockdown, it has received a great deal of criticism. First, it needs to be taken into account that in Italy schools and universities have been treated differently. This has been a logic consequence of the fact that two different and distant ministries manage school and university problems. The only thing that schools and universities had in common during the pandemic period was the way in which distance learning was conducted: 1.6 billion students have been forced to attend lessons at a distance because of the pandemic. According to a study carried out by the DRC - Disability Research Centre of UNINT - Università degli Studi Internazionali di Roma, motivation to study in this period decreased in 42.7% of cases, remained constant in 37.4% and increased in 20%. The study also shows that some students were able to keep up with the transition to distance learning, while many others, particularly young and more fragile students from a socio-economic-cultural point of view, suffered serious losses in learning. One of the main reasons has been the lack of adequate digital infrastructure, but also often inconsistent support from parents, or the lack of experience on the part of some teachers in providing lessons with the tools and languages of distance learning. For the vast majority of the students, physical presence in schools and universities is not just better for learning; it also represents a fundamental feature of social life. Discontent and discouragement are now widespread among university students, as Professor Pasquale Palmieri points out: “the school is at the centre of our thoughts these days, but we cannot say the same for the university. We

even find it hard to remember the name of the minister who is in charge of running the universities and we are forced to track her down on Google: we can't find any interviews with her in the newspapers and less so do we ever see her in television debates<sup>109</sup>”.

Almost two years have passed since the beginning of the emergency and as a university student I cannot deny that I felt neglected and ignored for a long time. While schools were the topic of the day in the Italian news and talk show debate, little space was given to universities. In any case, there are other more concrete and structural problems that existed before the pandemic and which the pandemic has brought to light. Professor Palmieri argues: “In the first semester of the 2021-2022 academic year, university lectures returned to face-to-face mode, although digital platforms continue to host mixed mode and allow remote participation. Indeed, there are many students who stay at home. Several professors testify, not without disappointment, that few students are physically present. Some of them even ask for deferred lessons. They do not have the financial means to study and are forced to work to support themselves. The pandemic has enabled them to discover a possibility they had never considered before. Sometimes they take advantage of the night hours to listen to a few lectures and take notes, trying to keep up with their fellow students and take their exams with them<sup>110</sup>”. One of the biggest problems of the Italian university is the creation of differences that this education system creates. Whether students are studying on campus or commuting, the costs are increasingly high: fees are high, transport and rent costs are high. This is why distance learning has allowed many students to alternate between study and work in order to be able to support themselves as best they can. This has come at the expense of university life. Another major issue is transport: “Covid turned our lives upside down, but many things have changed less than they seem. I am reminded of my experiences as a student away from home in the late 1990s. Seats on trains and buses were scarce. Sometimes I would find a willing driver who would allow me to stand or sit in a corner on the ground. I decided to rent a room with some friends. We found a triple room with a shared bathroom in a dilapidated flat for six hundred thousand liras, or two hundred each. Student accommodation was non-existent: a few dozen places for thousands of applicants. I learn with bitterness that the situation today is similar<sup>111</sup>”. Indeed, transport and rent costs are huge. Some families simply cannot afford such high costs. Covid-19 and distance learning here have provided some kind of economic relief, but only for those who already had the adequate technological material to study from

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<sup>109</sup> PALMIERI P., *Negare il diritto allo studio*, Doppiozero (2022).

<sup>110</sup> *Ibidem*.

<sup>111</sup> *Ibidem*.

remote. It could be argued that grants and scholarships exist, but they are intended for a very low percentage of students.

Following Palmieri's analysis, other problems arise: "The classrooms are small, unable to hold the students who wish to attend classes. There is a computerised booking system in place, which generates a sad competition between people who would be entitled to attend their courses. Many give up and prefer to stay at home. There are many obstacles for students like them who want to experience life at the university on a daily basis. Sometimes lecturers, even the most willing and attentive ones, struggle to understand this. [...] True equality is not guaranteed by Dad, but by a State that intervenes to remove inequalities<sup>112</sup>".

Once again Covid-19 brings out the inequalities of our system. Universities, which should be the starting point for an individual's personal and professional development, are increasingly turning out to be companies as well as places for research and the promotion of culture. Indeed, universities have somehow acted like the virus did not exist at all. Financial aid to students has been poor, with inadequate fee reductions. In addition, universities have become increasingly cold and inattentive to the psychological and emotional situation of students. It seems as if the law of blackmail is in force, according to which if a student does not complete the course of studies within the set period, reaching a minimum number of credits by a certain date, he or she will have to pay large sums of money to continue studying, regardless of the economic situation and regardless of the existence of a virus that has disrupted the world economy. Despite this huge controversy, there are other problems linked with the primary objective of the University, the circulation of knowledge and passion that derives from it.

There has also been a massive trend towards the use of recorded lectures, which brings the whole learning process back into an asynchronous dimension, consolidating the idea of static knowledge, intended to be transmitted but not shared. Many have also pointed out the huge disadvantages of disabled and mentally ill people being forced to stay locked in a room in front of a smartphone or screen. In short, there is a risk of creating even greater distances between those who have the opportunity to experience the university in its relational concreteness and those who experience it instead in deferred form. Another problem, felt both in high schools and universities, has been the performance of online exams. Indeed, "online assessments introduced strong biases between the students, as some worked online with others (several teachers have observed identical answers to exam, especially for calculation exams, as it worked fine in writing/redaction exams), and some students tried to save time by

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<sup>112</sup> PALMIERI P., *Negare il diritto allo studio*, Doppiozero (2022).

pretexting connection problems. Some solutions to avoid cheating have been considered in France, such as monitoring exams via videoconferencing, or by installing software on the student's computer, which allows monitoring through facial recognition but also prevents access to other documents on the computer<sup>113</sup>". However, students consider these solutions as an intrusion into their privacy.

A number of crucial problems emerge, which are as obvious as they are forgotten: the system needs to be rethought from the ground up, starting with the centrality of a form of teaching that is developed in small classes, with open dialogue between all the players in the training process, and with constant attention to the relationship between teaching and research. These objectives can only be achieved with housing, scholarships and efficient facilities: the absence of these ingredients ends up excluding those who are poorer or have had fewer opportunities in life. "The reopening of this academic year was inspired by the desire to return to 'normality', without realising that it was precisely 'normality' that was the problem. The university is a journey made up of presence, but also of shared spaces, open libraries, meeting places, unplanned opportunities for discussion: all things that we have today in a hiccup, or not at all. It cannot be reduced to a frantic race from one classroom to another, before catching the bus or train home<sup>114</sup>". University must be about friendship, mutual help, nights spent studying together before exams, encounters between different cultures and worldviews. It must set knowledge in motion and not replicate it in a static way. I recognise that I went to great lengths in quoting this article, but the fact is that it is remarkably accurate in expressing the situation in which Italian universities find themselves today. There are many opinion leaders and journalists who wish for a future with more distance learning and really believe it could be an advantage for students. It is undeniable that in some respects distance learning facilitates the study path of those who choose to alternate between university and work or who do not have the financial resources to pay for rent or a train pass. However, to think that this could be the solution for the future is a defeat for the entire education system. The great thing about university life is the exchange of stimuli, which can only be achieved through presence, direct contact with lecturers and other students, as well as the hours spent in the study hall. That is why a paradigm shift towards more and more distance learning would be a shift for the worst, because it would make university a thing to be experienced with detachment, simply to have a degree in hand. The only solution, as suggested by Professor

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<sup>113</sup> DIETRICH N., et al., *Attempts successes and failures of distance learning in the time of Covid-19*, ACS Publications, (2020).

<sup>114</sup> PALMIERI P., *Negare il diritto allo studio*, Doppiozero (2022).

Palmieri, is to rebuild the entire university system to make it accessible to all without creating inequalities, but above all more humane and less disinterested in the economic and social conditions in which students live. The goal of modern education must be to train students to become citizens aware of the challenges that lie ahead. Professors must raise awareness about sustainability, cooperation, and the functioning of the global economy. There is the need to redefine the role of educators “who should no longer be the sole owners of knowledge but become mentors or facilitators, in particular to encourage students to find sustainable solutions to complex problems, based on a critical analysis of existing data and their own knowledge, which they need to develop teaching life skills necessary for the post crisis world, such as creativity, innovation, autonomy, resilience, adaptability, communication, and collaboration, empathy, and emotional intelligence unlocking new technologies to offer engaging and motivating education programs<sup>115</sup>”. Improving education to build a generation of capable humans is imperative for the reconstruction and improvement of the world we live in.

### **3.3 Covid-19 and paradigm shifts: e-commerce and ‘robotization’**

The pandemic has marked a definitive shift from physical shops’ commerce to e-commerce. However, the impact of the pandemic has been felt differently in many industries.

Among these, “healthcare, construction, and retail industries are the top three industries expected to see pandemic-related productivity growth through 2024. Retail’s growth will be driven by ecommerce, warehouse automation, and advanced analytics. Online grocery is expected to retain the growth it’s experienced from the COVID-19 pandemic, while other categories like remote education are expected to reverse closer to pre-pandemic levels. Ecommerce sales grew 32.4% year-over-year in 2020 in light of the COVID-19 pandemic. In 2021, growth was about half that, coming in at 16.1%. That amount of growth is approximated to happen again in 2022 and 2023, with total ecommerce sales expected to reach \$1.065 trillion next year<sup>116</sup>”. The e-commerce boom has led to the replacement of small and medium-sized enterprises' sales. Therefore, the second paradigm shift of the post Covid-19 pandemic might be the growing digitalization of commerce. Indeed, more and more brands are setting up digital platforms. Even traditional vendors who had never thought to sell on the

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<sup>115</sup> DIETRICH N., et al., *Attempts successes and failures of distance learning in the time of Covid-19*, (2020).

<sup>116</sup> TONEY L., DAVIS S., *How Coronavirus is impacting e-commerce*, Roi Revolution (2022).

Internet are set to move to e-commerce. In recent times, a very interesting research about e-commerce growth during the pandemic and beyond has emerged. Several academics have provided useful information on the drivers of e-commerce developments, e-commerce business model innovations and e-commerce firm performance during the Covid-19 pandemic. First, they clarified that e-commerce volumes differ sharply across countries. However, as they subsequently point out, the drivers of e-commerce activity have changed during the pandemic: “Prior to the pandemic, there was a strong correlation between e-commerce to GDP and the innovation capacity of an economy. During the pandemic, e-commerce growth has been faster where containment measures were stricter and it has been larger where e-commerce was less developed<sup>117</sup>”. Then, the authors argue that the pandemic has promoted a ‘catching up’ process in e-commerce growth among countries: “the lower the level of e-commerce in a given country in 2019, the higher the growth rate of e-commerce during the Covid-19 pandemic. This implies that countries with very low e-commerce volumes have been catching up<sup>118</sup>”. This research demonstrates how the pandemic has been a driving force for e-commerce development. It is evident that consumer’s behaviour changes during a pandemic because of social distancing and quarantines, but it is not clear whether this change will stand once the pandemic will be at its end because disastrous events such as terrorist attacks, natural disasters, and pandemics also result in long-term behavioural shifts and changes in consumption lifestyles. Quarantines, lockdowns, social distancing, and all measures to favour the containment of the infections have blocked or considerably reduced the economic activity of the vast majority of businesses such as stores, local shops, restaurants and outlets. In Italy, “the only sectors that were exempted from the general lockdown were those considered as ‘essential’ by the government. No clear definition of ‘essentiality’ was provided, but implicit reference was made to those sectors that are necessary either to the survival of the population (e.g., the food value chain) or to the full operation of the healthcare sector. Accordingly, the essential activities were identified by means of a broad sectorial classification<sup>119</sup>”. As physical shopping was not permitted, more and more consumers began shopping online, finding out that e-commerce is “practical, cheaper, reassuring and allows them to overcome the stress imposed by new sanitary rules and regulations in retail

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<sup>117</sup> ALFONSO V., BOAR C., FROST J., GAMBACORTA L., LIU J., *E-commerce in the pandemic and beyond: online appendix* (2021).

<sup>118</sup> *Ibidem*.

<sup>119</sup> CASELLI M., FRACASSO A., TRAVERSO S., *Robots and mitigation of the risk of Covid-19 contagion in the workspace: some evidence from Italy*, EconPol Europe, Università di Trento (2020).

outlets<sup>120</sup>”. The uncertainty that characterizes this period has made people, even the amateurs, keener to buy online. E-commerce has boomed and retail companies with it. However, the economic uncertainty is pervading online business too: “despite a global increase in online purchases since the start of the pandemic, uncertainty around the drivers of online purchasing behaviour remains. Further research is needed to understand how online consumption is evolving throughout the pandemic and the potential role of electronic commerce in a post-COVID-19 world<sup>121</sup>”. The pandemic has evidently changed consumers’ behaviours, and it is paving the way for a paradigm shift in production. Working environments are changing. Many retail companies are already getting prepared for future crises by investing in robotics and automation to cope with high demand and staff shortages, partly due to contagions. The increased demand for e-commerce during the pandemic has led to increased use of robots in warehouses and automated checkouts in shops. The development of robots during Covid-19 has been detected in two key activities: delivery and storage. “Self-driving cars, robots that cook (almost) as skilfully as some chefs, software that can diagnose diseases, machines that beat humans at chess and game shows... All these inventions already exist... as well as those we have yet to see. In the words of the economists Brynjolfsson and McAfee, these technologies are starting phase two of the second machine age. Phase one of this second age started in the mid-90s when information and communications technologies took over many routine tasks and changed how companies operated. But this second phase or new paradigm is very different because, for the first time, technologies are demonstrating they can also do non-routine work and learn how to solve problems on their own<sup>122</sup>”. With the growth of e-commerce and the demand for worker protection by workers, the hands and algorithms of robots that distinguish objects have proved very useful in overcrowded warehouses, performing functions such as material handling, inventory tracking, cleaning, picking up customer orders, and automating food deliveries. These advancements belong to the biggest companies like Amazon and Walmart, which already used robots before the pandemic and have now increased their use. Even “food service is another area where the use of robots is likely to increase because of health concerns. Fast-food chains like McDonald's have been

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<sup>120</sup> GUTHRIE C., *Online consumer resilience during a pandemic: an exploratory study of e-commerce behavior before, during and after a COVID-19 lockdown*, Journal of retailing and consumer services (2021).

<sup>121</sup> *Ibidem*.

<sup>122</sup> ARENAS J. G., *Writing the future: the technological paradigm shift and the new economy*, CaixaBank Research (2018).



testing robots as cooks and servers<sup>123</sup>”. But complete ‘robotization’ in most of the e-commerce warehouses and fast-food businesses seems to belong to a distant future. In fact, there are a limited number of automatized assistants that mostly operate in developed countries. The majority of countries will not even imagine replacing their workforce with robots in a forthcoming future, also because increasing ‘robotization’ of the workforce will inevitably leave some workers unemployed. Several countries could cope with this with subsidies and grants to cover the lack of income of those labourers, but many countries cannot provide such aids because of structural economic problems. Ultimately, it seems that the deployment of robots in the workspace might trigger a trade-off between safety and employment. Indeed, “some observers, such as Dalia Marin in a contribution on Project Syndicate, have already expressed their concerns that the Covid-19 pandemic and the associated recession might eventually create the incentives to introduce labour-replacing automation. Even trade unions would be in a difficult position as the decision of substituting robots for workers in certain phases of the production process would be motivated by the goal of reducing the tasks requiring physical proximity among workers<sup>124</sup>”. At the end, the burden of the trade-off will clearly depend on the industry’s system and size, and to the workers’ participation in the shift.

### **3.4 Covid-19 and paradigm shifts: social media and the new marketing**

The first chapter of this work has already shed light on how Covid-19 has changed information, perhaps forever. However, information networks’ change is just the tip of the iceberg of a wider process of digitalization involving our society. In this process, social media are playing a leading role, as they have hereby become one of the most popular among the sources of information, although they are not always the most reliable. Indeed, as it has already been discussed earlier in this work, social media have made information accessible to anyone equipped with an Internet connection. The problem is that the amount of information is almost constantly uncontrollable, leading to the diffusion of false and fake news, and even when information is indeed reliable, it can be overwhelming and stressful for people who are

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<sup>123</sup> THOMAS Z., *Coronavirus: will Covid speed up the use of robots to replace human workers?*, BBC News (2020).

<sup>124</sup> CASELLI M., FRACASSO A., TRAVERSO S., *Robots and mitigation of the risk of Covid-19 contagion in the workspace: some evidence from Italy*, EconPol Europe, Università di Trento (2020).

not accustomed to receive that quantity of information, resulting in misinformation or in the creation of false beliefs. The flow of information is not the only issue that has been dramatically influenced by social media during the pandemic, but it is an alarm bell of how being digital and aware citizens has become indispensable, now more than ever. The Covid-19 pandemic has shaped human interactions forcing people to participate, organise, and share online events on Zoom, GoogleMeet, Streamyard, Facebook, Youtube, Twitch. With no chance of physical connection, people have spent hours video-calling and chatting on Whatsapp. TikTok and Instagram have boomed among youngsters thanks to the immediacy of their contents. Twitter has been used as an online newspaper to spread and get new information. In general, social networks have contributed in raising public health awareness and have helped some people feeling less alone when living in confinement, perhaps changing human lives forever by transforming interpersonal and business communication. A world without social networks seems very far from our actual perspective, but this is nothing new. The pandemic has accelerated a process that was already underway, which represents another paradigm shift, the third one, towards a multi-level life: regular and perhaps virtual. Indeed, Mark Zuckerberg, the owner of Facebook, Instagram and Whatsapp, has recently been set up to create an alternative virtual universe: Meta. It is too early to predict how Meta will affect and shape people's behaviours, but the road seems marked out by the lockdown period. The Covid-19 pandemic has led to lockdowns and restrictions, which have led to mental disorders in a considerable proportion of the population, especially among younger people. Some scientists argue that social network usage can be partially blamed for that outcome as social anxiety is becoming worryingly widespread, especially among young people.

At the very beginning of the pandemic and throughout the first lockdown, social media have been fundamental instruments of social interaction. It can be said that human interactions have changed astoundingly since that period. Indeed, among youngsters, the pressure of gaining more 'likes' or more 'friends' has had controversial effects. Instead of making people who feel socially anxious more connected, it had the opposite effect, creating a high level of detachment from reality. An increase in social media use also provides increased opportunities for social comparison because social media might foster the idea that perfectionism is possible. Other users appear to be perfect in the eyes of who is watching, and this might trigger some negative perceptions about observers. The fact is that "what's often posted to social media is inherently biased, as very few people will post photos or updates about their flaws. It's important for people to take a step back and recognize that what is being posted isn't reality. The impact of increased screen time reaches far beyond those

struggling with social anxiety. Because the pandemic provides fewer opportunities for in-person interaction, many feel less connected than they did in the pre-pandemic world, despite their intentions to use social media for more connectivity. In fact, in the first experimental study of Facebook, Snapchat, and Instagram use, psychologist Melissa G. Hunt, PhD, associate director of clinical training in Penn's Psychology department, found that social media use actually increases depression and loneliness<sup>125</sup>”.

However, there are also scientists who support social network usage as a possible antidote against loneliness and depression. They argue that “the ability to connect via so many different platforms not only helps alleviate feelings of isolation but increases the sense of psychological comfort. It makes people feel less lonely and less fearful to know they aren't dealing with this alone. Others found that social media helped them feel like they could do something about what was happening in the outside world<sup>126</sup>”. What experts agree about is that this is just the beginning of a ‘socialnetworking’ process of human lives. The hope is that the change will be for the better: “Livestreaming and social entertainment sites like TikTok will continue to grow as the pandemic continues, eMarketer predicts. In the meantime, social media has become more embedded in our lives than ever, and the increased reliance we've developed in the last year is likely here to stay. What's certain to gradually change is how we behave on social media, as our actions morph to meet our needs. We shouldn't use social media to reproduce pre-pandemic normality; we should be using it to create a new normal. As one Recode reader expressed, living through this pandemic could change our relationship with social media for the better<sup>127</sup>”. The relationship between social networks and human beings seems to be unbreakable. Indeed, several companies have invested huge amount of money to relocate their marketing campaigns on social media. Facebook, YouTube, Instagram, and Twitch, just to name the most popular ones, have made advertisement more and more noticeable by using algorithms to calculate the users' preferences. This might be the preamble of a future where human needs are quickly recognizable by a computer that analyses the users' actions assuming what he or she might want to buy. Moreover, during the last decade, social media marketing has become a full-fledged job. The Social Media Manager is the company figure in charge of managing marketing and advertising on social channels. This new profession is so relevant that universities have started offering complete master

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<sup>125</sup> FULLERTON N., *Instagram vs. Reality: The pandemic's impact on Social Media and Mental Health*, Penn Medicine News (2021).

<sup>126</sup> MOLLA R., *Posting less, posting more, and tired of it all: how the pandemic has changed social media*, Vox (2021).

<sup>127</sup> *Ibidem*.

programmes on this matter. Social media marketing can now be considered the most important branch of digital marketing that, through a well-defined strategy, uses social channels and platforms to raise awareness of brands, services and products, increase brand awareness, improve engagement with its audience, generate interest and maintain brand reputation on social networks. A well-designed social media marketing campaign is bound to be imperative for the future of many companies.

The use of social media has increased significantly, and the COVID19 pandemic has accelerated the process. Furthermore, the growth of social media has transformed the dynamics of the electronic marketplace by creating social networks of consumers, opinion leaders, and field experts. Many scholars have outlined the relevance social media marketing has in the present world. It is now widely acknowledged that promotional messages on social media are successful in influencing consumers' perceptions about product image and in convincing them to purchase more. There are several reasons why people are attracted to social media: "user gratification can result from affection, attention seeking, habit, information sharing, disclosure, and social influence. For one, social media offers temporal dissociation, which limits the user's awareness of the time passing. Also, social media provides users with focused immersion, which allows the user to escape life's unpleasant realities. Third, social media can provide heightened enjoyment from successful interactions between the user and the software. Fourth, social media provides the user with a sense of control, and lastly, it can satisfy users' curiosity by providing novelty and amazement<sup>128</sup>". Therefore, social media represent a magnificent tool for companies for the identification of product needs. According to Mason's research, Covid-19 might have accelerated this trend. In fact, social media platforms have become a pivotal tool for building brands' marketing strategy, especially with regards to designing brand awareness and excitement: "COVID-19 appears to be pushing consumers towards more online consumer behaviour activity, the influence of social media will likely increase throughout the world. However, cultural differences should be considered when developing social media strategies in other countries because social media platform preferences may differ from one country to another<sup>129</sup>". Therefore, even though there is the need to take into account differences between countries, it appears that most developed countries will see digital and social media marketing grow exponentially to become fundamental to the lives of sellers and consumers, and thus to the

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<sup>128</sup> MASON N. A., NARCUM J., MASON K., *Social media marketing gains importance after Covid-19*, Cogent Business & Management (2021).

<sup>129</sup> *Ibidem*.

entire economic system. However, this growth will inevitably increase the technological gap between developed and developing/poor countries. Digital divide and technological inequalities will persist for decades and it is not predictable when or whether they are going to diminish.

## **Conclusion**

Epidemics and infectious diseases have marked human history for decades, impacting on social and economic aspects in ways that have always overcome human expectations. This work explores similarities and differences between pandemic and post-pandemic periods of the past and the present, providing new literature for the post Covid-19 situation in Europe. The greatest certainty is that social and economic changes and shifts are a logical outcome of a pandemic, but the paradigm shifts induced by the Covid-19 pandemic are undoubtedly different and wider than those of past pandemics. The main reason is that the Covid-19 outbreak has exposed and emphasized all the flaws of our society. Indeed, the Covid pandemic has come in an era already deeply marked by the economic and financial crises of 2008-2009 and 2011-2012, as well as the migration crisis that erupted in 2015 and is still on going, and the climate change crisis, which is becoming more serious with each passing year. In the background, the political crisis that has brought populism into the limelight with the victories of Trump and Bolsonaro in the US and Brazil, with a European Union that has not yet made the leap from mere economic giant to political giant, seeing populism emerge and gain support here too. Moreover, the last few years seem to have sanctioned the end of the American century. The world is moving towards the end of the 'pax americana' and towards a stabilisation of multiple economic and political poles. The continuous growth of China is the main example of this process. In all this, information has changed and the pandemic has helped to accelerate the process already underway. The spread of and the reaction to information during and after a pandemic has always been a controversial issue. The problem of fake news is not new and it has characterized pandemic periods at least since the 14<sup>th</sup> century, after the Black Death outbreak. However, it has now become astonishingly malicious. Social networks, despite being important vehicles for the proliferation of news, have showed how easy it could be to spread false and fake news in a way that can become dangerous and undermine social harmony.

Another important aspect is the economic turmoil that goes with and follows a pandemic. This issue is relevant because of the recent crisis our society went through, but also because the socio-economic life of many countries has changed drastically due to rising income inequality over the last two years, as a result of lockdowns and restrictions. Even earlier pandemics have produced or set in train economic transformations. The Black Death of circa 1348–50 is a particular issue. The disease ticked the collapse of the feudal economic system, a process which was to last three centuries, ending with the cataclysmic 30 Years War of 1618–48. The decimation of the population following the Black Death made land more abundant relative to labour, increasing the wage-rental ratio. This had the impact of lowering inequality, a tendency moderated by the falling price of grain in the late 14th century. It also altered the composition of output, leading to less grain production, increased animal husbandry, and the pattern of Europe-wide trade in woollen products, halting the hitherto flourishing Silk Route trade. The feudal system, however, lingered till the end of the Thirty Years War, which also produced intermittent epidemics.

After the Covid-19 outbreak, we might be witnessing a huge social and economic change characterized by the return of the centrality of the State as an economic actor and the entrance to an era of extensive digitalization. Remote working, distance learning, e-commerce and social media marketing are only the tips of an iceberg of changes that is going to deeply hit and transform our society. However, the change will not be uniform. Indeed, as it has already been mentioned, the Covid-19 pandemic exposed and worsened some of the inherent inequalities of our capitalist world. It has become more and more evident that poor and developing countries will never catch up developed ones in terms of technological advancements. The digital, cultural, social, and economic divide is not shrinking; it is rather getting wider and deeper. Now, the hope is that the pandemic might make us all more aware that there is no longer time to ignore these inequalities but that the time has come to rethink our system so as to make it more equitable and respectful of human beings and nature. In fact, pandemics, climate change and the capitalist system are interrelated concepts that need to be taken into account when speaking about epidemics. As Snowden points out in his outstanding work: “like all pandemics, COVID-19 is not an accidental or random event. Epidemics afflict societies through the specific vulnerabilities people have created by their relationship with the environment, other species, and each other [...] COVID-19 flared up and spread because it is suited to the society we have made. A world with nearly eight billion people, the majority of whom live in densely crowded cities and all linked by air travel, creates innumerable opportunities for pulmonary viruses. At the same time, demographic increase and frenetic

urbanization lead to the invasion and destruction of animal habitat, altering the relationship of humans to the animal world”<sup>130</sup>. It is not only a matter of social equity, it is also a matter of respecting the environment and making this world enjoyable for those who have been exploited and disregarded until now. Covid-19 has come into contact with humans because of the expansive nature of capitalism. The accumulation of wealth has pushed humans over the line. This might be interpreted as a warning: capitalism needs to become more aware of the long-term consequences of exploiting nature and neglecting humans.

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<sup>130</sup> SNOWDEN F.M, *Epidemics and Society*, p. ix.

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