



ALL THAT IS SOLID MELTS INTO COVID-19: IMPACTS OF THE PANDEMIC ON *MONDIALISATION* AND GLOBALIZATION

TODO LO SÓLIDO SE DESVANECE EN EL COVID-19: IMPACTOS DE LA PANDEMIA EN LA MUNDIALIZACIÓN Y GLOBALIZACIÓN

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“All fixed, fast-frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses his real conditions of life, and his relations with his kind”.
Manifesto of the Communist Party (1848)

Contextualization: After a year of COVID-19 pandemic, there are currently many questions and deep discussions about its impact on international relations.

Objective: To proceed in its study it is necessary to start by differentiating two concepts that are generally interchangeable for academics, but that are referred to processes of different nature: *mondialisation* and globalization.





Method: The article is structured according to the famous quote of "all that is solid melts into air..." from the Manifesto of the Communist Party, which served as inspiration for the book of the same title by Marshall Berman, where it is studied the effects in globalization of incipient socio-economic sectors: cryptocurrencies, e-learning, eSports and entertainment.

Results: COVID-19 has had a significant impact on globalization, "melting" its material bases, thus resulting in an uncontrollable, accelerated and quite possibly irreversible transition towards a new digital era of globalization.

Conclusion: Due to COVID-19, different sectors attached to the digital world are experiencing a rapid growth, "profaning" the current basis and concepts of finance, education, sport and culture, and "compelling" these socio-economic sectors to face its current "conditions" in order to adapt better to the new digital era of globalization.

Keywords: *Mondialisation*. Globalization. COVID-19. Digitalization.

Contextualización: Después de un año de pandemia de COVID-19 persisten actualmente muchos interrogantes y profundos debates sobre su impacto en las relaciones internacionales.

Objetivo: Para proceder en su estudio es necesario comenzar por diferenciar dos conceptos que son generalmente intercambiables por los académicos, pero que refieren a procesos de distinta naturaleza: mundialización y globalización.

Método: El artículo se estructura según la famosa cita de "todo lo sólido se desvanece en el aire..." del Manifiesto Comunista, la cual sirvió de inspiración para el libro del mismo título de Marshall Berman, donde se estudia los efectos en la globalización de incipientes sectores socio-económicos: criptomonedas, educación virtual, deportes electrónicos y entretenimiento.

Resultados: El COVID-19 ha tenido un impacto significativo en la globalización, "desvaneciendo" las bases materiales de ésta y motivando una transición incontenible, acelerada y posiblemente irreversible hacia una nueva era digital de la globalización.

Conclusiones: Debido al COVID-19, diferentes sectores adscritos al mundo digital están experimentando un rápido crecimiento, "profanando" las bases y conceptos actuales de las finanzas, educación, deporte y cultura, y "obligando" a estos sectores socioeconómicos a enfrentar sus condiciones "actuales" para adaptarse mejor a la nueva era digital de la globalización.

Palabras-clave: Mundialización. Globalización. COVID-19. Digitalización.





1. INTRODUCTION

In December 2019, the Wuhan Municipal Health Commission officially reported several cases of a new severe pneumonia that was affecting its population. In January 2020, when new information about the virus was emerging, China announced that the pneumonia cases were "atypical" since the symptoms did not correspond to any known type of Severe Acute Respiratory Syndrome (SARS) or to the Middle East Respiratory Syndrome (MERS). Consequently, both Chinese authorities and the World Health Organization (WHO) were highly concerned about the development of the new disease.

Two months later, on March 11, 2020, the WHO Director-General Tedros Adhanom not only announced to the world the presence of COVID-19 in 114 countries, but also warned that "we have never before seen a pandemic sparked by a coronavirus. This is the first pandemic caused by a coronavirus" (ADHANOM, 2020). However, considering that throughout human history there have been other global pandemics that were put under control, what is the "novelty" of this coronavirus pandemic for the international community? Why is the COVID-19 a disruptive event in recent human history?

To answer these questions and understand the scope of the COVID-19 pandemic from International Relations, firstly we need to differentiate two historical processes: globalization and *mondialisation*; which are two terms that have been used interchangeably –by academics as well as by the general public– to describe the spreading of products, services, issues and ideas beyond state borders. However, we think that in the differentiation of these two concepts lies a fundamental issue for the understanding of contemporary dynamics in this COVID-19 era.

Accordingly, the challenge of facing COVID-19 is projected as one of the most complex in recent world history, not only due to the nature of the virus, but also because of its ability to alter, in different ways, the dynamics of globalization and *mondialisation*. Our analysis maintain that the global presence of COVID-19 pandemic has disturbed certain dynamics of the *mondialisation*, but without configuring a different new world (for





example, post-capitalist). However, the impact of COVID-19 has been much more disruptive for the globalization.

Bringing the iconic phrase "all that is solid melts into air" back from the the Manifesto of the Communist Party, which served as inspiration for the title of Marshall Berman's book (1988); we lay out that among the consequences of COVID-19 there is a "melting" of the material dimensions of globalization thanks to the digitization process that encompass nowadays most of the economic and social activities.

To identify those elements of continuity/disruption in a post-pandemic world, the paper is structured in four parts following the Manifesto of the Communist Party quotation from the epigraph. Firstly, we nuance the concept of globalization in relation to *mondialisation*, since it is through the latter that we can understand the relative nature of pandemics; secondly, we analyse the characteristics of the globalization, understood as a different and recent phenomenon in the history of humanity, as well as the emergence of COVID-19 in this specific period. Thirdly, we address the contradictory effects of COVID-19 into globalization, since it is hindering some of its dimensions, but at the same time, it is accelerating others specially attached to the digitalisation process. Finally, we expose some specific sectors that have undergone through major changes during COVID-19 thanks to its accelerated digitalization: cryptocurrencies, e-learning, eSports and entertainment.

2. "ALL FIXED, FAST-FROZEN RELATIONS, WITH THEIR TRAIN OF ANCIENT AND VENERABLE PREJUDICES AND OPINIONS, ARE SWEEP AWAY" (MONDIALISATION)

Even when *mondialisation* and globalization have different roots and meanings, some academics use indistinctly both terms, which is a terminological-conceptual imprecision that generates confusion when studying these processes. In this sense, David Held et al (2002, p. 516) highlight four distinctive historical periods of globalization:





premodern globalization, which includes a very long period of time from 9,000 to 11,000 years ago, globalization at the beginning of modernity, approximately between the years 1500 and 1850; modern globalization, from 1850 to 1945 approximately, and finally, contemporary globalization or "dense globalization" that has occurred from 1945 to the present.

John Ravenhill has a broader perspective, he suggests that the first stage of globalization would not begin in the 19th century but between the 15th and 16th centuries; then, inspired by Karl Polanyi (2011, p. 67-78), he underlines some historical specificities of the interwar period to finally study the post-1945 stage that extends to the present day (RAVENHILL, 2011, p. 9-19).

For Richard Baldwin (2018), globalization 1.0 preceded the World War I, it began with the steam revolution and other forms of mechanical energy until World War II. Globalization 2.0 encompass the end of World War II and the establishment of the institutional framework of the United Nations, until the mid-1980s. Finally, globalization 3.0 is especially characterized by the cross-bordering of corporations and the extensive development of global value chains.

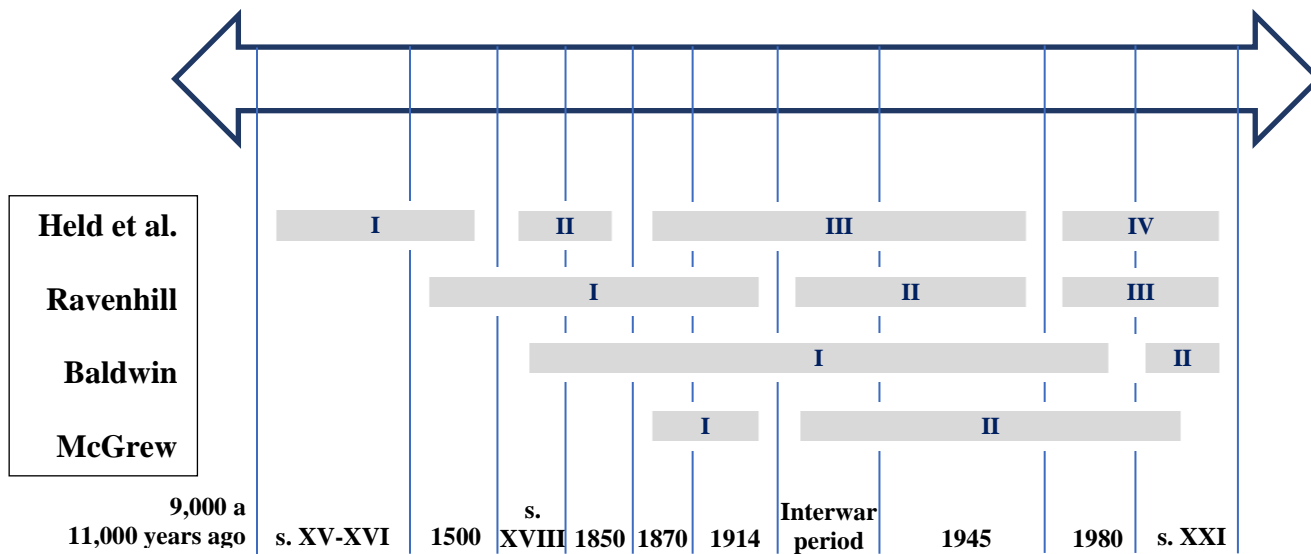
In the case of Anthony McGrew, he describes the first era of globalization as the *belle époque* that is placed between 1870 and 1914; the second era corresponds to the globalization that unfolds throughout the world since then (MCGREW, 2011, p. 276).

As we can see in figure 1, the aforementioned authors expand or broaden the concept of globalization at such levels that they present it as a process almost parallel to recent human evolution. If globalization goes back to the very emergence of the Neolithic Revolution, what is the point of distinguishing and studying historical stages such as Middle Ages or Modernity? If globalization is a socio-spatial process of transformation in such a loose and broad sense, what is the specificity and value of other concepts such as, for example, *mondialisation*? Such a reduced epistemology of globalization damages the validity and usefulness of the concept itself. Accordingly, it must be emphasized that globalization and *mondialisation* are widely related phenomena but not equivalent, since they have their own specificities.





Figure 1. Globalization periods according to the selected authors



Own elaboration graphic

Properly understood, *mondialisation* describes "the process of generalization of exchanges between different parts of humanity and between different places on the planet" (LE MONDE DIPLOMATIQUE EN ESPAÑOL, 2012, p. 19). Regarding different places, this does not necessarily mean a connection between far distant points, but rather to territorialities placed at different levels or spatial scales (NOGUÉ FONT; VICENTE RUFÍ, 2001, p. 20-22; AUTOR, 2011, p. 21): local, subnational, national, subregional, regional and continental. Such levels have their own dynamics but they do not operate independently or in opposite ways, rather they complement and affect each other permanently. Thus, "*mondialisation* is a general process resulting from the combination of particular intra-level and inter-level processes" (ROCHA, 2003, p. 240). In summary, *mondialisation* evokes a process that encompasses the entire world and that unfolds simultaneously on several spatial levels, but at different rates and with different degrees of depth.

The beginning of *mondialisation* dates back to the last century of the Late Middle Ages, when specific conditions thrived in the European world-economy that made possible the emergence of capitalism and, later, the State. It is specifically in the 16th





century –with the discovery of the maritime route from Europe to India, the colonization of America, the discovery of Australia, the beginning of the hegemony of the United Provinces of Netherlands, among other events– when the European and capitalist world-economy dominates the other world-economies then existing. Thus, the entire world is subsumed in the economic (capitalism), political-administrative (State) and socio-cultural (modernity) logics of a world-system that will have Europe (Eurocentric) as its centre. For this reason, the 16th century represents the beginning of the *mondialisation* and the emergence of the modern world-system.

In this regard, throughout history there have been diseases that were “globalized” as it happened with smallpox during the conquest of America, the so-called “Russian flu” at the end of the 19th century or the so-called “Spanish flu” during the interwar period. All these pandemics spread throughout the world causing a significant number of deaths, being all part of the continuing *mondialisation* revolution. As Marshall Berman (1988, p. 95) explains, “in this world, stability can only mean entropy, slow death, while our sense of progress and growth is our only way of knowing for sure that we are alive. To say that our society is falling apart is only to say that it is alive and well”.

3. “ALL NEW-FORMED ONES BECOME ANTIQUATED BEFORE THEY CAN OSSIFY” (GLOBALIZATION)

From our point of view, globalization is a process that unfolds on a specific but abstract spatial level, that is, it lacks a specific territoriality because it already encompasses the global level¹. Ultimately, the distinctive features of globalization are immediacy, simultaneity and densification of social relations, which are currently immersed in a virtualization process thanks to the digitalization of a wide range of human activities.

¹ Alberto Rocha (2003, p. 250) explains the global level as the “the spatial level of the world where transnational processes are unfolded and ‘global flows’ circulate, which leads to the formation of a globality”.





As with *mondialisation*, it is also possible to define a (shorter) historical process of globalization. This is because the beginning of globalization dates back only to a few decades ago, probably to the late 60s and the first half of the 70s with the conquest of space, the creation of Internet, the mass production of personal computers, the development of cellular telephony, the lowering of international means of transport and the widespread growth of cultural industries. In this sense, globalization is "a little known reality yet" (IANNI, 1999, p. 11), a phenomenon that "has no precedent in history (ROCHA, 2003, p. 291), "a qualitative and quantitative process different to any other that previously existed" (DEL ARENAL, 2008, p. 217).

Thus, globalization is about a close and interdependent confluence of activities, mainly economic (finance, commercial and productive) involving all kinds of actors on a new spatial level, the global level. In market terms, globalization means, on the one hand, a global expansion of supply, that is, the penetration of goods, services and capital wherever there is a solvent demand, regardless of geographical or protectionist barriers. On the other hand, globalization also means a level of accumulation, concentration and centralization of capital, which allows capital to participate in all kinds of sectors, many of them formerly controlled mainly by the State, such as health, education, infrastructure, pensions, etc.

Evidently, the engine of globalization has been its economic dimension, since its base, like *mondialisation*, is capitalism (IANNI, 1999, p. 155-182; BECK, 1998, p. 164). That is why globalization is often perceived as an inherently economic dynamic or it is conceived as a "synonym of an intensification process of world economic integration" (MCGREW, 2011, p. 277).

Nevertheless, globalization is a multidimensional phenomenon, that is, a process that unfolds and has an impact on all dimensions of human activity: social relations, political activities, cultural practices, environmental impact, security, etc. (IANNI, 1999, p. 11-31; GIDDENS, 2000, p. 40-46; SAFRANSKI, 2004; BAUMAN, 2006). Hence, Celestino Del Arenal defines globalization as "the intensification, interdependence, instantaneity and ubiquity of cross-bordering political, economic, scientific-technical, social, informative,





communicative and cultural interactions between the different state, transnational, sub-state and individual actors” (2008, p. 218).

Summarizing, *mondialisation* and globalization do not refer to totally independent analytical notions. On the contrary, globalization is embedded in the dynamics of *mondialisation*. As we mentioned before, *mondialisation* is a *longue durée* process that simultaneously and differently unfolds at various spatial levels; meanwhile, globalization is a process that it is developed at global level/scale, being mainly a product of the mass media and transport revolution that occurred in the second half of the 20th century. In this sense, *mondialisation* precedes and shapes globalization, and accordingly, in analytical terms, globalization is a product of *mondialisation*.

Consequently, the COVID-19 pandemic is inserted in the globalization because it arises in this period characterized by the immediacy, simultaneity and densification of social relations that are immersed in the digital era of a wide range of human activities. At the same time, the COVID-19 pandemic is the first one that is having a disruptive effect on what is called the globalization 4.0, characterized by the arrival of the digital age in different socioeconomic spaces (ZAMBON et al., 2019). According to the founder of the World Economic Forum Klaus Schwab (2016), in terms of scale, scope and complexity it means a transformation "unlike anything humankind has experienced before", altering the way we live, work and interact. We include here the progress in information and communication technologies thanks to cyber-physical systems with a direct impact on artificial intelligence, robotics, nanotechnology, quantum computing, biotechnology, the internet of things, the fifth generation of wireless technologies, 3D printing or fully autonomous vehicles.

4. “ALL THAT IS SOLID MELTS INTO AIR, ALL THAT IS HOLY IS PROFANED” (THE CONTRADICTORY EFFECTS OF COVID-19 IN GLOBALIZATION)





Through the reading of the Manifesto of the Communist Party, Marshall Berman explains that “the trouble with capitalism is that, here as elsewhere, it destroys the human possibilities it creates. It fosters, indeed forces, self-development for everybody; but people can develop only in restricted and distorted ways. Those traits, impulses and talents that the market can use are rushed (often prematurely) into development and squeezed desperately till there is nothing left” (BERMAN, 1988, p. 96). In the same way, globalization has been disrupted by the pandemic of COVID-19, since it has generated a contradictory effect, hindering some of its physical activities, but encouraging even more the development of the digital era, especially through the dissemination and socialization of knowledge.

Even though it is not the first pandemic of the 21st century, COVID-19 is the first one in history to be notified and alerted through social media. In this regard, the WHO began to make extensive use of the most popular social networks in the world, especially WeChat, QQ, Twitter, Facebook, Instagram, and YouTube, to notify the world about the pandemic. At the same time, apart from the U.S.-led criticism to the WHO for not holding China accountable, the veracity of the WHO has been questioned through various digital platforms, where the dissemination of false, distorted and biased content has created confusion, misinformation and a chaotic circumstance around the COVID-19 response. That is why several private and public initiatives against disinformation and fake news were launched. Private corporations like Adobe, Arm, BBC, Intel, Microsoft or Truepic, recently created the Coalition for Content Provenance and Authenticity (C2PA), while the WHO launched its own Information Network for Epidemics (EPI-WIN) as soon as February 15, 2020 based on science and evidence, in order to prevent the spread of “mis- and disinformation while respecting freedom of expression”, because it can cost lives (UNITED NATIONS DEPARTMENT OF GLOBAL COMMUNICATIONS, 2020; ZAROCOSTAS, 2020; WHO et al., 2020).

In addition, even though the WHO does not have the authority to force states to adopt its regulations and guidelines, its specialized technical capacity gave it the legitimacy to suggest the implementation of quarantines or physical distancing measures





to reduce human-to-human transmission of COVID-19 (WHO, 2020a). In this regard, to mitigate the consequences of physical distancing and confinement, technologies of information have played a key role, supporting activities such as digital payments, video conferencing, voice-enabled mobile business applications, platforms of customer relationship management, the use of artificial intelligence technology and even the delivery of food, medicines or health products with the support of remotely piloted air systems (WHO, 2020b).

Unlike previous pandemics, physical distancing measures were really necessary in 2020: while H1N1 had a contagion rate of 1.2 to 1.6 people, COVID-19 rates have been much more contagious (MEO et al., 2020); in addition, when the H1N1 pandemic occurred, there were already two antivirals that were effective in 2009, oseltamivir and zanamivir, while with COVID-19 there was not effective antivirals until the end of 2020. For these reasons, and under the recommendation of the WHO (2020a), each country implemented confinement and quarantine measures.

These measures began in China as soon as January 2020, when this country took unprecedented measures that restricted the mobility of almost 60 million people. On January 23, the entry or exit of Wuhan was prohibited and on the 29th, all the cities of Hubei province were sealed. Once the quarantine was implemented, the Chinese government only allowed one member per family to go out and buy basic products under strict precautionary measures.

Social and physical distancing measures such as these were later replicated by other countries with their own nuances and characteristics. This worldwide phenomenon of physical distancing has been known as the Great Lockdown. Hence, the year 2020 represents a landmark in recent history not only because of the millions of infections and the loss of hundreds of thousands of lives, but also because of the multisectoral consequences on the world economy: according to the International Monetary Fund (IMF), the global economic contraction for 2020 is estimated at -3.5% (a 0.9 percentage better than previously projected); while the global debt is over the 355% of the global GDP, its





higher number in history with \$281 trillion, which means an increase of more than a quarter in relation to the entire previous decade (IMF, 2021; TIFTIK; MAHMOOD; GIBBS, 2021).

In the primary sector, the Great Lockdown had a differentiated impact. While the price of commodities related to the agricultural sector was relatively unaffected since the demand for corn, wheat, soybeans, and other basic grains remained constant, the hydrocarbon prices had their historical lows. The application of quarantines around the world caused a contraction in the demand for hydrocarbons estimated at 30%. Saudi Arabia and Russia, the two main oil powers, could not reach an agreement to reduce their production and adjust the price, but, on the contrary, their disagreements led to a “price war”. That is how during the 2020 Great Lockdown the price of an oil barrel from the Organization of Petroleum Exporting Countries (OPEC) was quoted at US\$ 12.22 on April 22, while West Texas Intermediate (WTI) oil surprised the world by settle US\$ -36.98 on April 20. Although the impact is heterogeneous (ESCRIBANO, 2020), this historical fall has undoubtedly affected countries whose income is highly dependent on oil.

The secondary sector has also been strongly affected. It should be noted that, in the context of current globalization, large industries structure their production through global value chains (GVC), which distribute functions to external partners to execute them. As part of the Great Lockdown, the GVC have been disrupted - beginning with China, Asia, then Europe, and finally the United States and Latin America - thereby affecting not only the productivity of various industries, but also the economy of thousands of people participating in them. In summary, the Great Lockdown has generated an important crisis in the secondary sector, questioning the functionality of the GVC (RINCÓN-AZNAR; MAO; TONG, 2020; KILIC; MARIN, 2020).

However, in the tertiary sector, the Great Lockdown had a very differentiated impact: on the one hand, sports events, cinemas, theaters, restaurants, bars, shopping centers, and specially tourist and civil air transportation services had a drastic standstill, dragging the stock markets (GUTIÉRREZ, 2020); on the other hand, those activities that could dispense with the physical presence in the workplace, that is, services that can be





provided remotely, continued to operate with a less impact. In the end, the conversion of the face-to-face office into a “home office” allowed the survival of many companies.

Nevertheless, the Organization for Economic Cooperation and Development (OECD) stated last year that the COVID-19 pandemic “has triggered one of the worst jobs crises since the Great Depression”, with an impact 10 times bigger (OECD, 2020). Without overlooking the great exception of basic stores and pharmacies, it is possible to say that the Great Lockdown generated, in just a couple of months, a new division of labor favoring those activities that do not require a presence in the workplace and condemning those who do need it (KOCHHAR; PASSEL, 2020; HADDEN; FISHBANE, 2020; DESILVER, 2020).

In other words, the Great Lockdown has sparked a teleworking revolution in the service sector, catalyzing processes that had been theorized years ago: “physical work in the service sector is becoming less functionally and task structured, less linearly determined, with employees being encouraged to multi-skill and reduce demarcations between tasks that traditionally accompanied the mass production and managerialism of the industrial era” (JONES, 2004, p. 18).

As we stated in the introduction, it seems that COVID-19 is accelerating and promoting the change towards the digital elements of globalization. According to the World Economic Forum “day-to-day digitalization has leapt forward, with a large-scale shift to remote working and e-commerce, driving a surge in work-from-home arrangements and a new marketplace for remote work” (WORLD ECONOMIC FORUM, 2020).

5. “AND MAN IS AT LAST COMPELLED TO FACE WITH SOBER SENSES HIS REAL CONDITIONS OF LIFE, AND HIS RELATIONS WITH HIS KIND” (THE DIGITALIZATION OF GLOBALIZATION IN THE COVID-19 CONTEXT)

Another element to consider within the globalization process is that the circulation and collection of data as the core of a capitalist reconfiguration scheme is currently





emphasized. Data has become an essential component for a greater number of economic sectors, which use them as capital (SADOWSKI, 2019, p. 1). Under this paradigm, the idea of data as capital affects and transforms into a vertiginous rhythm the foundational pillars of the economy and its operation mechanisms (KITCHIN, 2014; SRNICEK, 2016). There is a number of works within the digital political economy literature that give a number of labels to refer to the dynamics of interaction between capitalism and data: it has been called surveillance capitalism (ZUBOFF, 2016; 2019a; 2019b); informational capitalism (FUCHS, 2010) and platform capitalism (SRNICEK, 2016).

Within this literature, it is agreed that a change in the economic structure is taking place in which the data is created, collected and circulated as capital and not only as a raw material (SADOWSKI, 2019, p. 3). That is, the imperative of accumulation in globalization is not conducted only by storing and collecting the data, but also by creating and reconfiguring such data in monetary value. This ontological and epistemological process was accelerated by the COVID-19 and may be extended in a post-pandemic period, where human daily activities are commercialized through a process of extraction by dispossession that occurs when the transition of a large number of human activities moves to digital terrain (THATCHER; O'SULLIVAN; MAHMOUDI, 2016; VAN DIJCK, 2014).

5.1. CRYPTOCURRENCIES

During the Great Lockdown, the use of financial mechanisms and digital services has had a considerable increase. One of the best examples during 2020 and 2021 are the so-called cryptocurrencies (bitcoin, ethereum, ripple, etc.), that have had a quote record due to their propensity to fluctuations. In the case of bitcoin, it increased its value by 305% in 2020, and in early 2021, a bitcoin currency could be exchanged for \$ 35,000 USD (GARCÍA, 2021).

For a better understanding of the scope of the digital economy that has emerged in globalization, it is necessary to briefly explain how cryptocurrencies work. Through





blockchain technology –an account book where the list of records (blocks) are linked, distributed (nodes) and encrypted to protect the privacy and security of the transactions and their production– cryptocurrencies seek the resolution of complex algorithms to share and distribute the records as a chain (TAPSCOTT; TAPSCOTT, 2016).

There are various implication of COVID-19 in the rise of exchange protocols as an alternative mechanism for traditional financial transactions. On the one hand, some national economies and international financial institutions such as the European Central Bank have considered using crypto assets or incorporating them into traditional financial exchange mechanisms to drive economic recovery (MORALES, 2020); on the other hand, different investors have sought schemes to protect themselves against inflation, which could be caused by the printing of money to stimulate economic activity. Although cryptocurrencies escape the control of central banks and the financial policies of governments, as in traditional financial and stock markets, there are investment funds, companies and individuals capable of moving large sums of money or crypto assets that generate speculative exercises and in turn manipulate the market up or down (GARCÍA, 2021)².

It is worth highlighting some assertions that argue that cryptocurrencies will be the reference value of the new digital economy and that they could undermine the pre-eminence of sovereign monetary systems. However, it is still an ongoing debate due to restrictive elements such as a limited widespread of technology, the restrictions of some cryptocurrencies about having a finite value³, or the energy consumption associated with the so-called data mining –a necessary process for the creation of cryptocurrencies– and its effects on climate change.

5.2. E-LEARNING

² They are exchange platforms known as “whales” that have a large number of crypto assets, the best known are Kraken and Gemini.

³ Bitcoin has two restrictions: the limitation to 21 million coins in total and an extraction limitation to 6.25 per block (Tapscott & Tapscott, 2016).





As part of the strategies against COVID-19, most governments around the world temporarily closed educational institutions to contain the spread of the pandemic in the first months of 2020. According to data from the UNESCO, 1.2 billion students were affected around the world, representing 68% of the total number of students enrolled and closings nationwide in 150 countries (UNESCO, 2020a). In this context, schools and universities developed innovative methods of supporting teachers, such as online professional development and advice via digital platforms and use mentors to scale up activities aimed at building student capacity in the use of technologies, as well as increasing investment in distance learning to prepare the student community for future school closings, among actions aimed at strengthening e-learning.

Furthermore, in an unprecedented event, UNESCO led the so-called “Global Education Coalition” (2020b) whose objective has been to offer inclusive learning options to the student community during the unprecedented Great Lockdown.⁴ The common goal of the international agencies, the private sector, representatives of civil society and other international actors that are part of this coalition, is the promotion of investments in distance education to mitigate the immediate interruption caused by COVID- 19 and establishing new approaches to developing open and flexible education systems. One aspect to highlight of this Coalition is that the support, tools and services provided to countries to expand educational opportunities during the Great Lockdown are free: gratuity has been the key to spread out this aid (UNESCO, 2020b).

In this contingency, different tools have been used for the continuity of teaching in the digital space such as video conferencing, virtual tutoring, online learning software, learning applications, enrollment for massive open online courses (MOOC) and intensive courses oriented to the labor market (Bootcamp). For example, in India, BYJU's online learning platform reported a 150% increase in the number of users of its product (THE TIMES OF INDIA, 2020). There is also the case of China that instructed the transition of

⁴ Among the private sector actors that are part of this coalition, we find associations such as Education Cannot Wait, World Food Program, Commonwealth of Learning, Microsoft, Weidong, Google, Facebook, Amazon, Coursera, Khan Academy, Profuturo, BBC Book Alliance and Zoom, among others





its students to the Tencent Classroom platform, qualified as “the largest ‘online movement’ in the history of education” (LI; LALANI, 2020).

As we pointed out previously, COVID-19 resulted in the drastic transfer of classroom-based school activities to e-learning: almost 1.3 billion students in 186 countries have used technology as a tool to continue their learning process (LI; LALANI, 2020). Although the adoption of technology in education predates this process, e-learning has taken a step forward after with the Great Lockdown. In this context, there are questions about the persistence of e-learning and what will be its impact in the global field of education.

What is the impact of online learning? On the one hand, it is observed that this unplanned transition to e-learning may reflect the lack of training of teachers in relation to technological tools, lack of equipment and insufficient bandwidth as factors for a deplorable experience (HORN, 2020). On the other hand, it is observed that the attention span, retention and efficiency of the e-learning scheme represent advantages compared to the merely classroom-based (CHERNEV, 2019). To go further, some institutions such as Zhejiang University (ZJU) have made a transition from the face-to-face model to the virtual one, extremely fast-paced and large-scale, which seems to be paradigmatic, through a co-developed application with Alibaba company (DingTalk ZJU) (WU, 2020). In turn, Imperial College London began offering through the Coursera platform, one of the courses with the highest enrollment in 2020 (LI; LALANI, 2020).

Thus, the Great Lockdown have highlighted the advantages of the digital teaching model, questioning the relevance and usefulness of the previous education system focused on memorization and standardization (KRISHNAN, 2020). From this, it is emphasized that educational models that rely on the intensive use of technologies allow for more efficient and personalized learning (ESCAMILLA, 2019). Therefore, the expansion of some tools such as artificial intelligence and augmented reality can enrich the experience of e-learning, which would help to disseminate and create an environment of transversal and multidisciplinary competences necessary to face a context that demands more capabilities such as critical thinking. However, it will be necessary to work





to create the conditions for the construction of this environment of the digital educational model and to bridge the digital divide in this area.

5.3. ESPORTS & ENTERTAINMENT

Like education, sport was also affected by the COVID-19 pandemic. In first place, the stalemate of professional competitions at national and international level, in some cases even bigger than during the II World War, has implied economic issues for all the stakeholders involved in the sport economy (UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, 2020; EPSI, 2020; TOVAR, 2021). Even considering that many professional sports resumed their activities throughout the Summer following the recommendations of the WHO (2020c), there is a long-lasting economic impact, since in 2021, most of sports still do not have public in the stadiums. In Spanish football, the estimated loss in excess of €1 billion is mainly due to transfers and the lack of fans in stadiums, which is a similar number of another studio referring to 43 clubs of the top-10 European football leagues during the 2019/20 season due mainly to broadcasting and matchday incomes (FOOTBALL BENCHMARK, 2021; CORDOVILLA, 2021). In the NFL, there is a loss of almost \$4 billion in revenue, and in the case of the Tokyo Olympics, probably celebrated with a limited number of (Japanese) spectators, the IOC approved in May a financial fund up to USD 800 million to address the postponement due to COVID-19 (GUILLEN, 2021; IOC, 2020).

In this context, international sport in the (post)COVID-19 era will be characterized among other changes by a boost of the digitalization process (DELOITTE, 2020). Currently, the role of digitalization in sport has been that of improving athlete's performance or adding value to the traditional way of doing business (DELOITTE, 2019): using big data to make better signings or improving the training of players; the introduction of new technologies in sports equipment and broadcastings to improve the quality of their products and services (like augmented or virtual reality); the use of internet in stadiums to





facilitate the consumption and to know better the preferences of fans; new ways of sponsorship and marketing through social media and live-streaming, etc.

In this sense, Tokyo 2020 will introduce revolutionary technologies to manage better the organization of the mega-event: having robots capable of giving directions to visitors, language translations, and transportation; crowd control directed by artificial intelligence or immersive virtual reality to enable a live feed of events in smart stadiums with super-fast 5G (MCCASKILL, 2019). For sports institutions, this is a way of demonstrating their social utility, their usefulness to solve global issues in order to legitimize themselves and their sporting events after corruption scandals (KISTNER, 2015) or “to avoid criticism of unreasonable spending of scarce public resources” (MANZENREITER, 2014, p. 127) that question positive Olympic legacies to the host cities and countries (BOYKOFF, 2013; PREUSS, 2014; BRANNAGAN; GIULIANOTTI, 2015).

All these technological innovations take on a new meaning under COVID-19 as it happened with eSports⁵, which is one of the best examples of sports digitalization at its finest and a new industry that took advantage of the sports stalemate along 2020.

Like it happened with traditional sports competitions, many eSports tournaments with live attendance like Intel Extreme Masters or Fortnite World Cup have been cancelled or postponed due to the COVID-19 pandemic (ESPN, 2020), implying also a severe economic impact for the industry. Nevertheless, since videogames competitions does not require necessarily a physical place where all competitors need to gather, the situation due to coronavirus pandemic is slightly better (CZEGLEDY, 2020b). Before the COVID-19 outbreak, Newzoo (2020) projected that the eSports’ revenues would reach for the first time to \$1.1 billion in 2020. In this sense, over the first three months of 2020, the stock value of many individual gaming and eSports companies increased from 15% to 40% (CZEGLEDY, 2020b), and in comparison with 2019, according to a report of Stream Hatchet, in 2020 live-streamed content watched on Twitch, YouTube and Facebook Gaming grew 69% in 2020 and up 81% from 2019, highlighting that the “interest was

⁵ ESports are defined here as institutionalized tournaments of video games “held for entertainment purposes, that have the participation of players whose primary form of income comes from their job as a professional gamer” (KOOT, 2019, p. 20).





maintained throughout 2020” even when sports competitions resumed their activity (STREAM HATCHET, 2020, p. 2-3).

Actually, the exposition of eSports to new audiences during the global pandemic has grown thanks to traditional Tv broadcasting –ESPN, Disney XD, FOX Sports, BBC...– and the active involvement of sports organizations. International Federations (IFs), professional leagues, clubs, and athletes turned to eSports to maintain at least some kind of media activity. Therefore, many eSports tournaments based on sports competitions, using the official videogames of their respective sport, have emerged during the Great Lockdown for charity, for entertainment or just diffusion purposes, employing not only the eSports players, but also professional athletes, influencers and content creators.

In this sense, sport institutions are changing their approach to eSports. During this decade, there has been a huge debate about the recognition of eSports as sports modality, especially in Europe (PARRY, 2018). UEFA President Čeferin warned for example that young people live in a global, digital world, meaning that eSports and video games are direct competitors for football (HOMEWOOD, 2018). However, in the current COVID-19 context, and considering the aging of sports audience and an attendance decline of some sporting events, the IOC conceives eSports as a platform for engagement with the youth (IOC, 2017). Its president Thomas Bach admitted in 2020 that social distancing will change sport relationship with eSports, encouraging all the Olympic stakeholders even more urgently to take control of the virtual forms of their sport in collaboration with game publishers, recognising that “some IFs have already been very creative by organising remote competitions. We should further strengthen these moves and encourage our joint working group to address this new challenge and opportunity” (BACH, 2020).

Therefore, considering the advantages of eSports tournaments in comparison with traditional sport, the main question is if COVID-19 will just mean the consolidation and standardization of the digital adaptation, or we are facing the beginning of a digital transformation that at the medium-term can even change the definition of sport (CZEGLEDY, 2020a).





But in a broader sense, eSports are just a tiny part of the global gaming industry that reached to \$174.9 billion in revenue in 2020. Precisely, the main reasons of growing up 19.6% from 2019 are entertainment, escapism, socializing and interacting with friends/family during the Great Lockdown. However, COVID-19 has not transformed this industry, rather it has accelerated some previous trends like the relevance of mobile gaming in terms of total gaming revenues –up to 48%–, the increase of digital sales or cloud gaming services like Google Stadia, PlayStation Now, Xbox Game Pass and Microsoft’s xCloud; which is an approach of gaming to the OTT business model (WIJMAN, 2020; HALL, 2020).

In fact, there has been a similar effect on theatrical and home entertainment, with COVID-19 “pulling forward digital disruption and forging industry tipping points that wouldn’t have been reached for many years” (PWC, 2020). In this sense, Hadida et al. explains how online streaming services have changed the relationship between consumers, filmmakers, producers and distributors, in terms of multiplying the film offer and formats at home instead of requiring the public to go to theaters. Consequently, it makes the studios to focus “even more resources on developing tentpole movies”, while “online film providers use their consumer base, market power, and substantial cashflow to produce their own content” with lower budgets, appealing to “hyper-segmented target consumers whose profiles are primarily determined using advanced data analytics” (2020, p. 9-10).

Since for OTT services a theatrical release is out of their value chain structure, conflicts with film festivals like Cannes are inevitable due to the need of a theatrical window before a movie debuts on streaming services, something incompatible with the nature of exclusivity of the OTT business (HADIDA et al., 2020, p. 7-11). In terms of numbers, consumer spending on digital home entertainment surpassed the global box office of 2019 for the first time, and in 2020 with the COVID-19 pandemic, cinema revenues plunged 71% in 2020, while the incomes of OTT services surged 26% in the same year (RAMACHANDRAN, 2020; RUBIN, 2020). This forced some of the big Hollywood studios like Paramount and Universal to reduce the theatrical window of their





movies; Warner directly decided to release its 2021 movies on streaming and in theaters simultaneously; and the Academy Awards decided that in the 2021 Oscars, streaming-only movies are allowed to qualify (with heavy restrictions) due to the COVID-19 pandemic. This questions even more the value chain structure of filmmaking (ELISA; JEAN-PAULE; PIERRE-JEAN, 2019), and on a similar way to eSports, the very concept of cinema. Even though some directors like Alberto Cuarón have explained the advantages of OTT services in terms of releasing no blockbuster movies that can reach a worldwide audience without needing a specific physical space to release the movie (D'Alessandro, 2019); for other directors like Nolan, Spielberg or Almodovar cinema cannot be separated from the theater, defending the need of traditional theatrical experience to remain relevant (KILKENNY, 2019).

6. CONCLUSIONS

One year after the first infections of COVID-19 were registered, many questions and profound debates still persist about the pandemic impact on international relations. In this paper, to have a comprehensive understanding of this, we began clarifying the concepts of *mondialisation* and globalization; since academics, politicians and society in general used them interchangeably, which means a terminological-conceptual imprecision that leads to a misreading of the pandemic in the recent history of humanity.

Secondly, considering that in times of crisis such as the one unleashed by the COVID-19 pandemic, classic works can contribute to give a broader and objective perspective of reality thanks to their enormous heuristic potential. This is what Marshall Berman did in his book, who at the beginning of the 80's of the last century studied the changing and contradictory nature of modernity through the Manifesto of the Communist Party. Inspired by this hermeneutical exercise, in this paper we found out that the COVID-19 has had a different impact on *mondialisation* and globalization.





For *mondialisation*, the COVID-19 pandemic is just another one among several others that spread throughout the world during human history; but for globalization, the COVID-19 pandemic has had a disruptive effect, replicating the quotation of “all that is solid melts into air”. This does not mean the end of globalization, but rather the “melting” of its material bases, thus resulting in an uncontrollable, accelerated and quite possibly irreversible transition towards a more complex digital era of globalization. Thus, the COVID-19 pandemic forced to adopt or maximize an intensive use of technology in areas where human activity only conceived it as a complementary or secondary tool.

Consequently, due to COVID-19, different sectors attached to the digital world like cryptocurrencies, e-learning, OTT services, gaming and eSports are experiencing a rapid growth, foreseeing important mid-term changes to the globalization, since they are already “profaning” the current basis and concepts of finance, education, sport and culture, and “compelling” these socio-economic sectors to face its current “conditions” in order to adapt better to the new digital era of globalization.

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