School society and pandemic in Mexico; online education: from temporary to permanent shelter

Sociedad escolar y pandemia en México; la educación en línea: de refugio temporal a definitivo

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ABSTRACT

As a result of the global pandemic of covid-19, distance education went from being a little considered training option to the status of the main operating alternative for the school system. Educational institutions by adapting their work to the use of digital platforms have managed to keep their programs active despite reducing their training expectations. School activities at home face complex social situations that contravene the teaching precepts, cause poor learning and many cases of school dropout. Educational systems in the medium term will promote remote teaching modalities in digital and telematic versions, whose didactics will dominate the 21st century.

RESUMEN

Como resultado de la pandemia de la covid-19, la educación a distancia pasó de ser una opción formativa poco considerada al estatus de alternativa principal de funcionamiento para el sistema escolar. Las instituciones educativas han logrado mantener activos sus programas al adaptar sus labores al uso de plataformas digitales, a pesar de reducir sus expectativas formativas. Las actividades escolares en casa enfrentan situaciones sociales complejas que contravienen los preceptos docentes, provocan aprendizajes deficientes y significativos casos de abandono escolar. Los sistemas educativos promoverán modalidades de enseñanza remota en versiones digitales y telemáticas en el mediano plazo, cuyas didácticas dominarán el siglo XXI.

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INTRODUCTION

The global crisis caused by the covid-19 pandemic -whose repercussions in various areas of social life are just beginning- has transformed public institutions and considerable organizational structures inherited from the past. In this perspective, this essay explores the socio-environmental circumstances in Mexico which, as a result of the global health contingency, involve school education and induce the use and adoption of telematic media, as well as the changes that impact on teaching contexts. For this purpose, the arguments presented are structured before, during and after the pandemic caused by covid-19.

THE EDUCATIONAL SCENE PRIOR TO THE PANDEMIC

While education systems and school institutions have diversified their curricula and programs for decades with the purpose of increasing the coverage of their services, starting with the Internet era, information and communication technologies (ICTs)-and more recently learning and knowledge technologies (LKTs)-have facilitated real-time remote learning (Latorre *et al.*, 2018). Twenty-first century digital media facilitate contact between students, content, and advisors, giving rise to online education, with virtual and face-to-face modalities that allow participants to advance their studies and overcome time, space, and resource constraints.

Until recently, mentors considered that educational tasks should be concerned only with preparing generations for adult life; however, the new circumstances of the global era - and in particular with the advent of digital technologies - configure an unprecedented scenario in which individuals, regardless of their age, gender and activity, can access greater knowledge autonomously. Education in the 21st century, therefore, is conceived as the self-management of learning that is necessary throughout life (Belando, 2017).

The advance of telecommunications drives the development of the information society and the knowledge economy, phenomena closely linked to globalization, which generates greater interdependence between individuals, organizations and regions. Currently, the influence of the Internet is determinant for daily and work activities; working days are automated by digital means and interactivity protocols, and technological devices condition the relationships of individuals with the world. According to the latest We Are Social Hootsuite report (Keim, 2020), 59% of the world's population employs internet services to perform public and private activities that are inescapable to them.

Despite the social and technological disparities prevailing in the world, ICTs and ICTs have changed both labor and educational scenarios, which configures a cultural landscape full of possibilities for training, education and updating of cadres, through digital and telematic means. The

proliferation of mobile devices that is currently registered in the world allows digital services to extend over broad segments of the population, which stimulates their capabilities and allows access to specific and recent information; however, the economic inequalities that prevail in capitalist society also manifest and dose benefits, since lower income groups are unable to appropriate the new technologies and consummate their digital literacy (Rodriguez, 2006).

Faced with the cultural potential of ICTs and ICTs, Unesco has promoted educational paradigms based on equity criteria. The organization aims to empower communities by ensuring open access to the best sources of information available in today's world. In the last three decades, major educational institutions in developed - and developing - nations have adopted advanced digital systems, platforms and computer equipment in order to strengthen the relationship between school and work. This responds to

the need to create new professional careers (such as mechatronics, robotics, home automation, medical engineering, agricultural engineering, biotechnology, law with a focus on the elderly, quantum engineering, among others) because companies require specific profiles [...] for their operation and to be competitive (Navarrete and Manzanilla, 2017, p. 74).

Currently, most professional activities employ digital tools, in addition to the fact that their work criteria adhere to international standards that require periodic updates and continuous audits. Likewise, the technological transition experienced by the professions has had an impact on educational centers and teaching methods, so that the programs offered in schools and universities adjust learning to the use of specific versions of commercial software and hardware that prevail in the labor markets.

When examining the educational reality in Mexico, it was found that in 2015 the total school enrollment amounted to 36 392 832 students, where groups enrolled in compulsory education predominated. In higher education, out of an enrollment of 3 882 625 students, only 12.3% were studying in mixed and distance modalities (Malo, 2014, cited in Zubieta and Rama, 2015). According to official data from the Ministry of Public Education (SEP), face-to-face sessions currently predominate in 265 277 educational centers (SEP, 2019). These figures show the low importance conferred to remote education in Mexico before the pandemic.

Although internet access in educational institutions has increased, its applications generally complement face-to-face school work, so most Mexican educational institutions, until 2019, had not consistently explored distance learning, either because they lacked an adequate vision or because of insufficient resources, equipment and trained personnel for this purpose. Similarly, the digital literacy of school communities in Mexico has not responded to a strategic plan in this area, which is why a

considerable percentage of teachers lacked the respective knowledge and skills (Estrada, 2020). This is due to various reasons, such as lack of updating, scarcity of resources, inertial performance or the generational gap of some teachers, which results in the development of few digital skills.

To the extent that teachers' digital skills are scarce, there is a gap between school practices and the labor realities of today's world. This situation has contributed to the fact that many generations are insufficiently prepared and are therefore unable to effectively and proactively enter the labor market. In addition, when considering generational changes, techno digital skills are an issue of great importance today. The student population, for the most part, is immersed in the digital era and is accustomed to the use of new technological devices, unlike their mentors (Crovi, 2010). In dynamic and adverse scenarios, teachers lacking digital skills become inactive, dysfunctional and reproducers of obsolete knowledge.

At the beginning of 2020, most teachers and managers considered it impossible that distance and online education would be able to replace face-to-face education, since the latter was subordinated to administrative schemes adjusted to a physical plant, defined schedules and standardized forms of academic work. Few teachers had noticed the evolution of distance education (d-learning) and its new versions of learning: e-learning (online meeting), b-learning (blended meetings), m-learning (on mobile devices), u-learning (ubiquitous learning) and others in development. The predominance of face-to-face educational formats did not require greater knowledge and skills in ICTs and ICTs.

At the World Education Forum, held in 2015 in Incheo, South Korea, nations were recommended to "leverage ICT to strengthen education systems, knowledge dissemination, access to information, effective and quality learning, and more efficient service delivery" (Unesco, 2015, p. 35). The call to renew educational practices and adapt them to digital technology would find few followers in our region, even at a higher level.

The Educational Reform in Mexico, promoted during the six-year term of President Enrique Peña Nieto, contributed little to modify the landscape of online education, despite inducing institutional policies towards content updating, teacher training and the renewal of educational media with the support of digital technologies. At the time, it was officially disclosed that:

> One of the Federal Government's strategies (2012-2018) is to promote the incorporation of ICTs in the teaching-learning process, and to achieve this it proposes three lines of action: develop a national educational informatics policy, focused on students developing their abilities to learn to learn through the use of ICTs; expand the provision of computer equipment and guarantee connectivity in educational institutions; intensify the use of technological innovation tools at all levels of the

educational system (PND, 2013, cited by Navarrete and Mancilla, 2017, p. 75).

Expectations for renewing education in Mexico were shot down in a short time due to the lack of consensus and insufficient resources. The counter-reformist teachers' movement allied to presidential candidate Andrés Manuel López Obrador, with parliamentary support, cancelled "the misnamed Educational Reform [sic]" of his predecessor. The incoming government repealed teacher evaluation and all programs associated with the reform, including the disappearance of the National Institute for Educational Evaluation (INEE).

As part of the new government guidelines, the SEP conducted popular consultations and school dialogues that gave greater concessions to teachers' groups. When Article 8 of the General Law of Federal Education was reformed, it was established that from now on governmental actions

> will be directed, as a priority, to those who belong to groups and regions with greater educational backwardness, dispersed or facing situations of vulnerability due to specific circumstances of socioeconomic, physical, mental, cultural identity, ethnic or national origin, migratory situation or related to aspects of gender, sexual preference or cultural practices (Diario Oficial de la Federación, 2020, p.4).

For his part, the former Secretary of Public Education, Esteban Moctezuma Barragán, publicly stated that the online educational modality can "provide learning opportunities to young people and adults to access, in a short time, to better economic conditions [...]; open and distance education is an educational model focused on its students, which additionally is accessible, inclusive, flexible and interactive" (Palacios, 2019, p.10). In this way, López Obrador's government envisioned some possibilities and social benefits linked to remote education.

GOVERNMENTAL ACTION AND EDUCATIONAL CIRCUMSTANCES

The year 2020 will be remembered by mankind as a hostile and fruitless period, when a tiny, fragile and contagious pathogenic agent, called SARS-CoV-2, devastatingly wiped out the best institutional, business and citizen plans outlined for the decade, including school education, an essential activity for social reproduction which, as a result of the pandemic, has undergone significant changes that lead us to reflect.

According to official figures, "the coronavirus is affecting the education of 1.5 billion students [...]; 185 countries have closed schools and universities [...], affecting 89.4% of the planet's student population" (Educaweb, 2020, p. 3). In spite of this, the main activities are operating in alternate ways, with the purpose of meeting the instituted objectives; however, as the

pandemic has been prolonged, the prognosis of a complex and adverse future for young people and their life plans has also been strengthened.

The covid-19 pandemic took the school world by surprise. Educational systems, even in highly developed countries, were forced to take unprecedented actions to provide, under special conditions, their services to the student population. When the global health emergency was declared, the World Health Organization (WHO) and the United Nations (UN, 2020a) disseminated some protocols for action to prevent further contagion, coordinate tasks and overcome the crisis.

In terms of distance education, it was recommended to use relevant technologies, protect data privacy and security, make communities digitally literate and adapt administrative systems to contingencies (Educaweb, 2020). Under these conditions, the Global Coalition for Covid-19 Education emerged as the body responsible for articulating public and private efforts to promote remote education with a focus on inclusion and equity.

In the first phase of the pandemic, all face-to-face school activities were drastically and compulsorily suspended in order to protect educational communities and people nearby who could become infected. The authorities surmised that the health crisis, as had occurred in the past, would be overcome in a short period of time. The prognosis proved incorrect and the authorities insisted that educational institutions continue their work through digital platforms and non-face-to-face modalities, despite the fact that, in countries such as Mexico, most educational centers lacked the infrastructure and adequate preparation to undertake the required task.

At the beginning of 2020, few Mexican institutions had the digital capabilities to effectively solve the educational challenge arising from the pandemic, which forced schools to improvise and adapt their teaching-learning processes to alternative formats and remote interaction, through the support of radio, television or the Internet. In this context, they faced adverse situations, such as connectivity problems, the lack of service in a large percentage of homes, the lack of digital literacy among teachers, as well as the lack of adequate teaching materials and protocols to respond to the new circumstances.

Transforming homes into classrooms was, from the beginning, a major challenge for families with severe economic and housing limitations. This demanded creativity, extraordinary resources and tolerance to make domestic activities compatible with school activities, in order to avoid school dropout. According to the public statements of Undersecretary Luciano Concheiro, this phenomenon is close to 10% in basic education and 8% in higher education (Roldán, 2021).

The educational landscape has changed the perspective of young people drastically, evidencing the weaknesses and strengths of social sectors and segmenting them into two large groups: online and offline (Loría and Salas, 2020). The covid-19 pandemic shows the deep economic and social inequalities prevailing in Mexico in the 21st century, which also impact student and teacher performance. Regarding the technological gap,

the closure of educational institutions showed in an accentuated way the abysmal difference between the most affluent urban students, who have cell phones and computers with good internet connection, and those with less capacity and who do not have [...] a connection that allows them to continue virtual classes (Oliva, 2020, p. 6).

Once the pandemic began, the SEP took responsibility for basic education students and enabled television courses based on school contents, in addition to homework on the Internet. Despite the institutional effort, the lack of digital equipment, appropriate spaces, resources and qualified tutors prevailing in Mexican households undermined the measures adopted. Although the Mexican government has more than 50 years of experience in distance education -since the creation of the telesecundarias program, which currently covers 20% of the enrollment at this level-, it has not been able to respond satisfactorily to expectations and solve the educational problem in the national territory. The initiatives presented are incipient, such as the opening of educational portals and the digitalization of some textbooks (Observatorio Argentinos por la Educación, 2020).

At the individual level, teachers' efforts to maintain contact with their students -even at higher levels- have faced multiple difficulties, both physical and emotional, due to the lack of didactic models in line with the crisis situation faced. The scarcity of resources, independent study habits and insufficient social stimulation affect the fulfillment of educational objectives, especially in learning units that require personalized tutoring, the use of specific instruments and practical activities, such as workshops and laboratories. Teachers have adapted their subjects to the means available in the hope that their efforts will benefit students, despite the prevailing socio-environmental circumstances.

Given the impossibility of face-to-face contact between teachers and students, Internet networks have become the refuge of formal education through the imposition of their rules. The formative processes based on close socialization experiences are suspended for the moment and, in some cases, annulled by the official restrictions imposed. Critical voices point out that "the proposal in social distancing has been concerned with presenting digital and television programs aligned to the curriculum, which means losing again the opportunity to bring school closer to life" (Barriga, 2020, p. 26).

Federal authorities report that the Aprende en Casa program achieved in its first phase that 85% of the student body maintained contact with the broadcasts and received counseling from teachers; however, this program was not evaluated by external agencies and, outside the big cities, the reality contradicts what was reported. In the opinion of Sylvia Schmlkes (2020), in the face of an exceptional school situation, the authorities should recognize the learning deficit, school dropout and low educational performance reported by households in order to act accordingly.

From the perspective of the present analysis, the greatest weakness of the educational process that has been adapted to the online format lies in the evaluation processes. The criteria applied do not take into account the particular problems and limitations imposed by socioeconomic and family environments on the performance of students and teachers. Mexico, like other countries, has had to establish emerging criteria to examine and validate learning. In an unprecedented development, some institutions opted "to give passing grades to all students for the first semester of 2020, in recognition of the magnitude of inequalities" (Lloyd, 2020, p. 120).

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As far as higher education is concerned, the use of digital platforms and learning management systems (LMS) has gradually flourished. After months of work at home, online education has become widespread among communities, as has the adoption of programs and tools such as MS Teams, Zoom, Moodle, Google Classroom, Skype and Canvas, among others. The companies in charge of providing liaison services have opted to enter into agreements with institutions and government agencies.

Educational systems attached to conventional formats have faced numerous limitations to operate under pandemic conditions, despite the fact that the pandemic has been going on for more than a year. This refers to the delivery of courses and the set of institutional procedures related to the admission and graduation of students at different educational levels.

In higher education, teaching activities have been affected, as well as social service programs and activities, degrees, congresses, research work, publications, hiring and promotion of personnel, exhibitions, extension services, certifications, among others. At the heart of the problem, the contingency makes it necessary to review the structure and functioning of educational centers to examine "the meaning of the school institution and the formal curriculum, of disciplinary contents far removed from reality, of hegemonic teaching practices, and of academic-administrative management tied to obsolete regulations" (Barrón, 2020, p. 69).

Criticism of institutional rigidity is not minor, since each "education system is a political form of maintaining or modifying the adequacy of discourses, with the knowledge and powers they imply" (Foucault, 1975, p. 37). In times of crisis and social tension, such as the present, most educational institutions reactivate their control devices to safeguard the purposes that give them meaning, and legitimize the conditions of social inequality.

Among the damages caused by the pandemic, in the educational sphere, it is worth mentioning the depletion of socialization processes and the undermining of personal development expectations. In this regard, it should be considered that "the main task of the school is not to cover contents, but to create environments for the harmonious development of girls, boys and young people" (Trejo, 2020, p. 128). Indeed, school training complements the education of the subjects and strengthens their life projects from a perspective of social insertion and mobility. The face-to-face school that favors face-to-face interaction redefines the attitudes of competition and collaboration among people, which characterizes the labor world of the 21st century.

In the face of the complex situation currently being faced, while classrooms remain closed, parents and guardians of minors have played different roles to prevent them from dropping out of school. For their part, the older children have been resilient and have been forced to postpone

their personal projects, in addition to seeking alternative occupations and exploring other ways of contact with the world.

During the confinement, part of the teaching staff has performed their tasks by digital means without having sufficient material, equipment and funding for this purpose. Improvisation and the intuitive exercise of online teaching has prevailed in cyberspace under the slogan of not abandoning students to their fate, in a civilizing trance that affects the mood and expectations of all (Gómez and Hidalgo, 2020).

Protecting the new generations represents a social survival measure as long as the covid-19 pandemic is a threat to the world population. In the face of the bio sanitary crisis, educational institutions have avoided being accused of negligence; in response, they have reduced their face-to-face activities to a minimum. Despite the political and economic pressures that accumulate due to institutional paralysis, local and health authorities consider it appropriate that, during the pandemic, educational centers remain closed and provide their services online to students until they are sufficiently safe (Unicef, 2021).

Isolation and lack of social interaction increase indolence, stress and even depression among young people. Likewise, the discordant and contradictory handling of information violates consciences and immobilizes individual and group initiatives. The distrust and insecurity that prevails in public spaces reinforces the feeling of social rejection of strangers, which affects territorial mobility (OECD, 2020). Border control has become a strategic factor to reduce contagion and mutations, as an example of this are the regions that claim to have controlled the situation caused by covid-19 by closing their customs.

The presence of covid-19 has disrupted the labor landscape worldwide. Significant economic activities have been abandoned and others have been transformed in order to reduce operating costs, obtain new revenues and prepare for the organizational change that seems inevitable in the medium term. Among the most severe impacts of the pandemic is the irreparable loss of formal and informal jobs, due to the closure of medium and high capacity establishments, as well as the decline in investment prospects and changes in consumer behavior. Capital is shifting to businesses with greater potential for automation and teleworking, which changes wage expectations, labor market insertion of operational workers and the training of future professionals (ILO, 2020a; De Jesús and Murillo, 2020).

Governments have sought to restore the functioning of their economy and optimize social assistance programs for vulnerable sectors, which has prevented the massive extinction of companies and an increase in unemployment. For the time being, their main challenge lies in strengthening the main value chains, improving economic indicators and maintaining social cohesion. In this context, the use of digital media and

the Internet has become indispensable for the restoration of substantive activities.

At the domestic level, technological intrusion in middle- and high-income households has led people to spend more hours a day in front of screens. Time spent viewing information has notoriously displaced physical and social activities; in addition, computer and cell phone addiction has become widespread, whether for work, commerce, communication or leisure reasons, among others (Ford and Weck, 2020). The use of electronic devices among young people has replaced public life and is presented as a means of escape from the state of reclusion they suffer. This new love of telecommunications is being exploited by the best positioned companies on the web, which attract the attention of users for different purposes (DPL, 2020).

THE IMMEDIATE FUTURE OF ONLINE EDUCATION

Social crises expose the systemic weaknesses of nations, even those that were concealed in times of peace and prosperity. Several critics claim that today's society is immersed in a civilizational (Márquez, 2009) and relational crisis (Calzadilla, 2010), as a result of having exalted the ideal of progress based on the subjugation of nature, the rule of technical rationality and individual success. Citizens of the 21st century suffer from hyperactivism (Markus, 2020), as they find themselves subordinated to imperative structures and purposes that are notably exclusive, which engender fragmented beings, separated from their natural environments, indifferent to human hardships and incapable of living together in harmony. As a result of these conditions, and coupled with the fear and stress accumulated in the last months of the pandemic, a considerable sector of the population has experienced depressive, violent and suicidal symptoms as a result of the loss of expectations and the desperation they have suffered (Valero *et al.*, 2020).

The tentative date of extinction of the pandemic is uncertain due to the continuous outbreaks of contagion in the world, in addition to the slow progress of the vaccination process, a situation that keeps governments cautious and citizens fearful (UN, 2020b). The contingency has shown that human health plays a crucial role in social development and that well-being depends essentially on the health of ecosystems. For this reason, and given the urgency of mitigating the presence of covid-19 in daily life, the collaboration of all actors is required, as well as actions among nations to overcome the state of crisis we are suffering.

In the face of these circumstances, global capitalism has shown the resilience of its actors and components. The economic system maintains the production and supply of goods and services, not only of the basic satisfiers, but also of complementary and superfluous products despite the closure of important companies at the international level (ECLAC, 2020).

According to the World Bank (2020), economic recovery and the return to normality will take two or three more years, which is why governments should implement buffer policies, as well as review their internal and external alliances. For Mexico, the prognosis is unfavorable due to the lack of forecasts and governmental measures to mitigate the covid-19 crisis (Loría and Salas, 2020). Given the recession scenario that is looming in the region, poverty will increase in the territory and, in order to avoid greater damage to the system, it will be necessary to implement special programs, austerity measures and social control.

In the face of the complex scenario that motivates covid-19, voices in favor of de-globalization are heard (Laborie, 2020), some of which seek to promote alternative models that provide nations with greater autonomy and control over their internal affairs; for others, the solution could be found in creating bodies that effectively and timely control the migratory and commercial flows that will operate from now on (CCSA, 2020).

Reflecting on the educational field in the face of the persistence of the risk of contagion in schools, the return of students to the classroom will not be able to be fully carried out, which is why many courses will continue online -some permanently- due to the health and economic advantages that this condition offers to users and managers.

The presence of covid-19 makes it necessary to rethink ways of life and to find the safest way of living in this context, which will make it possible to provide school education. Given the possibility of other pandemics and infectious diseases in the future, it is essential to envision alternative mechanisms to avoid suspending or abruptly canceling all economic, political and cultural activities again. Consequently, organizations are obliged to support their tasks and operations with automated processes and telematic systems. Collaborative teleworking will have to increase in strategic areas that avoid physical contact between people (ILO, 2020b).

In the coming years, schools and universities will opt to provide a greater number of online courses through the use of virtual platforms. Educational systems will require teachers with greater digital skills, and most institutions will prefer to standardize school processes by implementing academic control and monitoring measures, which will create dependence on the best-positioned educational software and hardware on the market.

As specific forms of teleworking are established, managers will be obliged to review and adapt curricular objectives to the expectations of users and employers, which will channel education towards pragmatic and commercial versions; for this reason, the current health crisis requires a review of the current paradigms. From a socio-environmental perspective, the main challenge lies in renewing the structures that protect in order to glimpse better horizons. In the face of the looming problems, it is the collectives with the greatest capacity for organization and reaction that will

be the ones to explore new civilizational directions and enable us to emerge triumphant from the crisis.

In the educational field, by taking advantage of new technologies, it is possible to aspire to the construction of better training and development scenarios, as long as digital platforms respond to the conditions and expectations of qualified work. For higher education institutions, the challenge lies in encouraging the transfer, generation and dissemination of scientific and humanistic knowledge under collaborative schemes between students and teachers.

Based on the socio-environmental conditions inherited from the 20th century and the systemic weaknesses revealed by the pandemic, two tentative scenarios emerge. The first, relying on the advances in medical science and the early entry on the scene of vaccines and effective treatments against covid-19, which would encourage economic reactivation measures and the return to capitalist globalization. This would prioritize for governments the recovery of employment, accompanied by preventive measures and sanitary norms.

The second scenario emerges from the ethical-intellectual debate on the desirable future for humanity from a socio-environmental perspective, which presupposes the launch of a different civilizational model, founded on broad consensus on a global scale (Pozzoli, 2017). Rethinking the world economy in terms of social justice, healthy coexistence and preservation of the biosphere, constitutes a complex and essential vision to arrive at a superior world order. The emergence of new organizations, values and purposes requires the self-critical analysis of the most significant historical experiences of humanity, in order to cement global awareness and the construction of truly promising and solidary futures.

In both scenarios, education plays a decisive role, as societies will become more resilient to advance in their endeavors in the post-covid-19 era. In the medium term, proactive institutions prepare themselves to face new bio sanitary battles, which guarantees their socio-cultural permanence.

As long as citizens adopt critical and self-critical perspectives aimed at reviewing the causes, implications and effects of the pandemic, it will be possible to renew social organizations, as well as the behaviors and attitudes of subjects towards environmental care. To this effect, the training tasks should emphasize the common issues linked to life and involving the world population. Likewise, valuable contents will be shared through digital and telematic media, which will be part of multiple educational options that, being relevant, will be inclusive, efficient and resilient (WBG, 2020).

New global agencies will enter the scene, seeking to diversify and specialize the online educational offer. Since this corresponds to the commercial

area, regulatory bodies linked to national education systems and international organizations will emerge. From now on, distance education programs will be subject to supervision and evaluation, which will have an impact on the cost of services linked to the global market.

Due to covid-19, in the medium term, multinational networks and organizations responsible for global health control will emerge which, equipped with instruments to monitor contagions anywhere in the world, will apply severe response protocols, since humanity is at risk. Artificial intelligence will play a leading role in this task.

As our societies become more aware of the numerous human and material losses caused by the pandemic, they will demand better educational and health services from the authorities and the corresponding bodies. In the face of this, the main challenge lies in getting citizens to make covid-19 a historical experience that encourages participation in global affairs through digital and telematic means.

Overcoming the current pandemic is not -although it may seem so- the most important challenge of the present generation, but the future of humanity must be reoriented towards horizons of fraternity and environmental viability. To this end, our societies need to assume environmental commitments and ensure that online education contributes to the flourishing of a global consciousness (Morin, 1999), focused on reviving the spirit of survival of our species during the present millennium.

For social life to move forward in a secure global scenario, it is essential to develop higher forms of citizen organization that allow the population to participate in making decisions that affect their future. It is worth asking: in which sectors will power fall after the global health crisis is overcome, what will be the path taken by economic development on a global scale in the coming decades, what role will the civilian population play in the renewal of institutions and in the restoration of international relations, and what role will it play in the renewal of institutions and in the restoration of international relations?

Online education is here to stay, and governments and companies will soon have to improve their technological and pedagogical resources. From now on, there will be an increase in online educational capacity, as well as virtual experiences as alternatives for education and training. Many school activities will not return to the face-to-face modality due to its operating costs and health risks. From covid-19 onwards, online educational programs will be seen as accessible and comfortable environments, particularly among affluent students

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