



## Executive report of the symposium

### « Education, digital technology, social cohesion and public policies»

08 and 09 June 2022

In the framework of the Latin America and Caribbean Week, the eleventh edition of the Institut des Amériques' symposium entitled "Education, digital technology, social cohesion and public policies", organised in collaboration with the EU-LAC Foundation, the Agence française de développement and the Ministère de l'Europe et des Affaires étrangères, was held on the 8<sup>th</sup> and 9<sup>th</sup> of June 2022, at the Palais du Luxembourg and the Agence française de développement. The scientific coordination was carried out by Emilie Rémond (associate researcher in information and communication sciences and member of the TECHNE research unit) and Carlos Quenan (economist, professor at the IHEAL and vice-president of the Institut des Amériques).

Summary of the presentations written by Salomé Cárdenas Muñoz, PhD student at CESPRA (EHESS-Paris).

Coordination of the report by Virginie Aron, Luis Miguel Camargo and Sarah Madjour of the Institut des Amériques.

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## SUMMARY OF THE PRESENTATIONS

Summary of the presentations written by Salomé Cárdenas Muñoz, PhD student at CESPRA (EHESS-Paris).

Wednesday, June 8<sup>th</sup> 2022

Palais du Luxembourg, salle Médicis.

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### Inauguration

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**Yves Saint-Geours, president of the Institut des Amériques (IdA).** After mentioning some welcoming words, Mr. Saint-Geours pointed out that the main lines of work proposed for the colloquium are of structural interest to the IdA: transamericanism, comparativism and transdisciplinary studies. It also highlights the importance of the links between Europe, Latin America and the Caribbean for the IdA and its partners, which have been strengthened throughout the health crisis. He believes that for all the countries of the two regions, the great challenge was that of education, since many academic institutions were closed for long periods. Without prior preparation, countries had to make the leap into the technological and digital world to ensure distance learning for primary, higher and scientific education levels. This has highlighted two key issues: 1. The digital divide and inequality between social groups, countries and regions; 2. The need to regulate the circulation of educational technological tools due to their potential commodification. These two issues explain the colloquium's interest in linking digital technology with social cohesion and public policies. Mr. Saint-Geours hopes that the conclusions of the inaugural conference and the four round tables will shed light on the alternatives for educational/scientific cooperation and distance education mechanisms.

**Jean-Francois Pactet, deputy director of the Directorate for Culture, Higher Education and Research and the Network (DGM/DCERR) at the Ministry of Europe and Foreign**

**Affairs (MEAE).** Mr. Pactet begins his speech by reflecting on the acceleration that digital has had as a result of the healthcare crisis and its impact on both the personal and professional lives of individuals. In his own experience, he says that diplomatic action has been turned around in this regard. He argues that in today's times digital technology is both an inevitability and an opportunity. For example, he mentions that thanks to it, French education was able to maintain links in Latin America with schools, universities and research centers, despite the limitations that its use implies in terms of human exchange and information management. He announces that exchanges between students, professors and researchers from the two continents have now resumed. In this regard, he mentions some of the most important programs currently in place: PREFALC and exchanges between engineering schools. On the other hand, he stresses that the transition to digital technology should not be exclusively linked to the pandemic as it is intimately linked to current societal and collective preferences. Some of the main programs show the cooperation between Europe and Latin America for digital transformation: Information Science Program EIST - SUD (2005); CEIBAL (promoted the delivery of laptops for primary school students and teachers in Uruguay); French Cooperation / INSPE: distance lecture series for students, teachers and principals of teacher training colleges to promote French teaching; University campus for student exchanges/mobility/tutoring in France (Alliance Française de Puebla, Mexico).

**Ernesto Jeger, program coordinator for Sustainable Development and Economic Issues, Europe-Latin America and Caribbean Foundation (EU-LAC).** Mr. Jeger begins his speech by referring to the social and economic collapse caused by the pandemic. In his opinion, this has implied: the widening of economic and gender inequalities and of all the elements that constitute a democratic society. Among the most impacted sectors have been healthcare and education, revealing an emerging need for digital technology to generate telemedicine and distance education. All this has been conditioned by long-standing structural socioeconomic problems, which justifies the imperative need to generate egalitarian processes in all social strata through public policies in homes, companies and schools. Closing the digital divide is of paramount importance, otherwise existing inequalities will be even greater. In his speech, the speaker insists on the generation and dissemination of innovative pedagogical practices. By ensuring access, it enables all

stakeholders in education to acquire new cognitive and digital skills and prepares students for success in the academic and professional world. How can Latin America achieve these goals? Digitalization can help narrow the gaps, but international digital cooperation is key. Europe, Latin America and the Caribbean are willing to accelerate digitization (artificial intelligence and digital skills) by taking on, for example, the "E-LAC" digital agenda (EUCLAC). In addition, the convergence of public-private partnerships must be considered. In 2020 and 2021, important meetings on a possible digital alliance have been advanced.

**Marie Pierre Bourzai, director of the Latin America Department at the Agence Française de Développement (AFD).** Mrs. Bourzai reminds the audience that last year's colloquium addressed the problem of the health crisis in the distance mode. Having said this, the question is asked: why has it been decided this year to deal with education, digital technology, social cohesion and public policies? It is due to the relevance of social issues in the last two years with respect to health, education, social cohesion and the collective. These issues are part of the transformations of our societies and are as important for development as economic growth. For the speaker, continuing education helps to reduce inequalities and vulnerabilities, but also generates opportunities necessary for participation, social mobility and civic and economic inclusion. In addition, she argues that education is inseparable from new digital technologies. The latter are characterized by having a significant effect on several areas such as: learning processes, mentalities, relationship with time, employment and education. The elements presented lead her to conclude that solutions must be sought to the digital gaps that emerge in this process, whether due to access to computer equipment, technological skills, the problem of cyber risks, the deficiency of public policies or weaknesses in digital innovation systems. She concludes by saying that AFD's Latin America department has recently decided to include this topic in its cooperation agenda in response to an important demand from its partners.

**Emilie Remond, associate researcher in information and communication sciences and member of the TECHNÉ research unit at the University of Poitiers.** Mrs. Remond began her presentation by explaining that what most aroused her interest in the scientific coordination of the colloquium was the relevance that the proposed

theme gives to a reflection from "cross perspectives" and "multiple approaches". She presents herself as a researcher committed to the analysis of global dynamics in order to understand local logics and vice versa. She recognizes the importance of putting into perspective the local customs and educational practices of a specific culture in the face of global processes. She is convinced that such a perspective (global and local) allows for a more detailed understanding of the evolution of educational systems, local practices and public policies. In addition, she believes that digital education should contemplate the following elements: the creation of efficient, equitable and inclusive infrastructures; to be a tool for the massification of knowledge (rationing of means in restricted contexts); be a vector of learning (dialogue between the disciplines of social sciences and engineering sciences); and, to be an instrument for the evolution of training and professionalization systems. She introduces the four round tables saying that each of them allows to question digital education from a specific angle. She concludes by saying that the emergence of distance education could be described as "brutal" if one takes into account the following factors that have been recognized by international organizations (UNESCO and OECD): health crisis, confinement, digital improvisation, deepening inequalities. She hopes that this colloquium will provide clues to envision a much more positive digital education and technological future than has been envisioned to date.

**Carlos Quenan, economist, professor at the IHEAL (Sorbonne Nouvelle) and Vice-President of the Institut des Amériques.** Mr. Quenan, as the scientific co-coordinator of the colloquium, stresses the importance of the return to face-to-face events that strengthen human contact. It recognizes the acceleration of digital technology in all areas, certainly in education. He explains the importance of reflecting on the topics proposed by the colloquium due to the overlapping of crises: The global health, social, economic, military with the war between Russia and Ukraine, energy and the prospect of a global food crisis. That said, he says that in today's world there is a great deal of uncertainty in general. But in the midst of this critical global context there is one certainty: to focus on education to provide a sustainable solution, taking into account environmental and labor issues. One of the main themes of the colloquium is to discuss the challenges in terms of training and

employment in Europe, but especially in Latin America due to the high level of informal work as a result of the pandemic. Education is a key challenge for the years ahead. In addition, Quenan mentions that the IdA colloquium have the singularity of enabling the meeting of specialists and academics from the world of higher education and science with policy makers and policy-oriented decision makers. Finally, he refers to his participation in Central America in a meeting dedicated to reflecting on the importance of strengthening human capital in promising economic sectors. He also refers to the importance given by UNESCO in Barcelona to, for example, the reactivation of the pandemic in higher education. It could be said that since the creation of UNESCO there has not been a challenge as relevant as the current one in terms of education, science and technology.

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### Opening conference– Education and the challenges of digital transformation

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**Sonhi TAWIL, director of the Future of Learning and Innovation, UNESCO.**

His lecture focuses on the pandemic period. It reveals that in April 2020, 4 billion students were affected because of school closures. In Latin American and Asian countries, the shutdown lasted up to 50 consecutive weeks. Its opening took time due to the evolution of the COVID-19 variants. Nine out of ten countries in the world used different types of technology to guarantee the right to education. The vast majority used the combination of digital technology, television and radio, while 15% used digital technology exclusively (Europe and North America) and 18% used only television or radio (sub-Saharan Africa). In 2020, 40 million Google users are registered while in 2021, 150 million users are registered. The most important challenges and lessons can be summarized in two questions: How can distance education in rural areas be solved? What are the new pedagogies resulting from this experience? It should be noted that the innovation of digital learning during the pandemic was an imposed and emergent process, which has certainly enabled the continuity of education for many but not for all. As a result, there are high levels of inequality and isolation. The acceleration of technological innovation in education during the pandemic must not lose sight of the noblest objective of the right to education, which is to generate equal opportunities for all citizens. Before the health crisis, the

discourse that digital technology would make it possible to reduce the education gap was positioned. However, the pandemic has highlighted the limitations of this assertion mainly due to the following factors: limited access to connectivity; lack of computer equipment; lack of digital skills; illiterate population; gender digital divide; households without electricity. The transition to digital education may produce a sort of "exclusion by design". Household characteristics became an indispensable variable to consider in order to understand inequality in a distance education context. The physical school helps ensure satisfactory academic performance in disadvantaged social strata. In the most vulnerable social classes, the school is an ideally safe sanctuary. It should be taken into account that there is a direct correlation between the prolonged distance schooling and school dropout (even in privileged environments), which explains the increase in child labor in the lower socioeconomic strata. The modernization and computer equipment policies in education should not fail to take into account that educational centers are also spaces for socialization, nutrition and civic learning. The negative effects of the digitalization of education have to do with cyber-attacks, cyber bullying and cybercrime. Currently, in socio-environmental terms, experts speak of "e-waste" (53 million metric tons, equivalent to all the waste produced by adults in Europe). Students' health has also been affected, with musculoskeletal problems and mental disorders due to disrupted socialization. Technology must be placed at the service of the humanistic values of education, and policy makers must be attentive to the process of commoditization of this instrument.

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#### Round table 1 - Digital education policies and cooperation issues

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**Martin Benavides, head lecturer of the Department of Social Sciences of the Pontifical Catholic University of Peru and director of Umbral, Higher Education Observatory of the Consortium of Universities.** The intervention focuses on the case of primary school and higher education in Peru. He explains that before the pandemic, a reform was carried out to close universities that did not have the necessary accreditations to operate

(94 were accredited, 51 were closed). One of the main reasons for closure was the fact that distance education was becoming a business (80% of the closed establishments offered distance education of very poor quality). This phenomenon is not exclusive to Peru. In Latin America, in the 1990s, there was a significant expansion of this modality in order to close educational gaps, but the process was poorly conceived. On the subject of inequalities, Benavides presents revealing figures: 45% of the "non-poor" have an Internet connection compared to 7% of the "extremely poor" (2022). Under these conditions, during the pandemic, schools could not implement distance education. The challenges in Peru were to expand connectivity, distribute computer material and train teachers in digital technologies. In this context, it was decided to use television, radio and progressively the Internet. In 2020, all public universities in the country (51) adopted an emergency remote education (not a real virtual education). Because of the health crisis, 16% of university students dropped out, compared to 12% just before the pandemic. Peru's educational agenda includes the need to guarantee virtual academic excellence with adapted pedagogical models. The majority of the population has a positive view of universities strengthening their virtual offerings (81%). To take this step, international cooperation is required, both financially and technically. The speaker emphasizes that the problem of administrative management is of the utmost importance to unblock ongoing projects. He suggests that it is also necessary to seek mechanisms to regulate the technological markets that see education as an extremely favorable niche for their economic interests. In this process, education must not lose its status as a fundamental human right.

**Livia Eliasova, geo-coordinator of the Caribbean Team, Directorate General for International Partnerships at the European Commission.** Her presentation focuses on the European Union's international cooperation in Jamaica with the "Digital Jamaica" program. This program has three main lines of work: 1. strengthening education for women (empowerment, breaking the cycle of violence); 2. teacher training (fostering the values of social inclusion, openness to diversity, enhancing different skills); 3. vocational and educational training with an impact on employability. She explains that the European Union is aware of the need to strengthen international cooperation with respect to global digital divides. In its agenda, digital law has been contemplated as a basic right, taking into account the fact that the

labor market is becoming increasingly digitalized. Its main mission is to form an active citizen of the 21st century and autonomous students through digital support. The European Union defines itself as an early player in the quest to implement digital education in Jamaica and thus achieve the digitization of its society. In Jamaica, 32% of employment comes from the private sector, but there is a lack of regulations. To this end, the European Union is committed to developing projects for the consolidation of SMEs. This commitment is reflected, for example, in the curricula of educational programs.

**Sandra Kučina Softić, assistant Director at the University Computing Centre of the University of Zagreb, president of the European Distance and E-learning Network (EDEN).** Mrs. Kučina begins by stating that during the health crisis, a sort of remote emergency learning was set up in an improvised manner. There was no real virtual education. She refers to the hypothesis that in pedagogical terms, virtual education invites students to be more active than in the physical classroom. The latter conceives the teacher as an active agent and the student as a passive agent. What to do with students who are no longer the same as they were 20 years ago? How can teaching methods be updated? She refers to the Croatian case where both rural areas and islands, because of the lack of teachers, adopted distance learning methods long before the health crisis, but not sufficiently. The pandemic made the shortcomings visible. For example, students could no longer travel to larger cities for their studies. One of the main problems was the lack of computer equipment at home. Families sometimes have only one computer, which limits access for all family members (teleworking and virtual education). It is necessary to think about maintaining the right to resilient education in catastrophic situations: pandemics, wars, earthquakes, and others. In general, she believes that it is necessary to invest in the training of teachers and university professors to acquire digital skills. This will have an impact on changing the mindset of education stakeholders, because as people age they are reluctant to acquire new skills. On the other hand, teachers must be materially recognized with fair salaries. Technological investment is relevant only if it is accompanied by investment in human talent.

**Saulo Neiva, director of the Agence Universitaire de la Francophonie (AUF), Caribbean region.** Mr. Neiva began by explaining that the AUF is an academic cooperation agency where universities and research projects benefit indirectly. It targets young people and is particularly present in Cuba and Haiti. One of its main projects is to promote "scientific Francophonie" and multilingualism around its projects. This facilitates the promotion of a multifactorial dialogue, collective construction, active solidarity as well as the inclusion of digital technology. Three key moments define the cooperative work of the AUF: 1. In 1989, the SYFED is created, for publishing and scientific dissemination; 2. In 1999: the CNF is created in order to provide computers and create French-speaking virtual campuses in the different universities of the network; 3. In 2021, the CEF is created to promote the French-speaking labor market, employability and scientific collaboration (there is a project to open an agency in Peru). One of the main poles is located in Port-au-Prince. The first difficulty in Haiti is the lack of an interconnected electricity system at the national level, which affects the level of connectivity. In social terms, it is noted that 80% of Haitians who manage to obtain a university degree migrate. One way to combat this high percentage of brain drain is to promote distance education. Students reside in Haiti but are trained abroad. The AUF and its members collectively build the operating model under a sort of scientific diplomacy. It is committed to generating standardized projects that are adapted to different cases, taking into account, for example, problems of inequality. For this, the agency relies on 5 strategic axes: 1. digital transformation and university governance; 2. employability and entrepreneurship; 3. network and international cooperation; 4. training of trainers and pedagogical innovation; 5. research and valorization. Finally, the speaker highlighted the main programs: CNF 5.0 and CEF; Résace (solidarity for economic transformation); and Geo ACT (reinforcement of risk education).

**Lynne Franjié, professor at the University of Lille, Director of the Department of Educational Evaluation at the Higher Council for the Evaluation of Research and Higher Education (Hcéres).** In the intervention Mrs. Franjié shares her experience during the pandemic period. She says that the main fear that arose in her academic environment was the fear of the absence of social ties and the loss of employment, which highlighted the extent to which universities are positioned in a distance education project. For example, of the 83 diplomas awarded by the

ERASMUS program, none has been designed for distance learning. The health crisis demonstrated that French universities are capable of maintaining online courses (which is not the same as distance education). The professor mentions two examples: foreign students enrolled in French universities have benefited from online monitoring; there has been an internationalization of juries. Despite coming to the end of the health crisis, many students continue to follow distance learning courses. Professors who live far away opt for online teaching. Universities are warning about the difficulties they are having in retaining students on campus. Students enrolled in the first years of university, as well as students in the school system, have the greatest difficulty in following distance learning courses due to their lack of autonomy. The main challenges for teachers have been: additional workload, pedagogical alternatives, digital competencies, mechanisms for student interaction and evaluation. Distance education at the university has put the student at the center of the problem because of his economic precariousness and lack of technological equipment. The current question is whether distance and hybrid modalities will finally become established over time or whether they will disappear as the health crisis ends.

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### Round table 2 – Digital education policies and technological economic issues

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**Cristina Cabutto (Policy Analyst for Latin America and the Caribbean, OECD Development Centre).** The question that articulates her presentation is how digital technologies can be at the service of an inclusive and efficient education in the case of Latin America and the Caribbean? First, the speaker reminded the audience that Latin America and the Caribbean is one of the regions most affected by the health crisis. Its schools were closed for much longer than in OECD countries (70% longer). The pandemic highlighted the limitations of the region in implementing distance education due to pre-existing technological weaknesses. Low levels of access to connectivity are key to understanding the context: 14% of lower-class students have access to a computer compared to 80% of those in the upper classes. How can this digital divide be reduced so that everyone can benefit from the transformation to a digital

era? The "one laptop per child" program demonstrates that it is not enough to generate infrastructure; it is clear that support is needed to generate digital skills. OECD school programs found that in rural schools in countries such as Mexico, Chile, Ecuador and others, a significant percentage of adults with a university degree are unable to fill out a form or use a mouse. In order to make the technological leap, it is necessary to ensure continuing education in the region so that all generations are updated and their knowledge keeps pace with technological changes. In the modern world, repetitive tasks are on their way to disappearing thanks to their automation. However, Latin America is one of the regions that maintains mechanical and routine tasks in the labor market. The relevance of cooperation between Latin America and Europe is concentrated in three areas: 1. Infrastructure (the OECD aims to connect the two continents and generate educational and academic networks); 2. Data protection: developing a secure digital ecosystem (Central America has high levels of digital insecurity); 3. The links between the right to education, digital technology and climate change (the AFD mobilizes countless resources in this regard).

**Maximiliano Alonso, director for Argentina at the Central American Bank for Economic Integration (CABEI).** Carlos Quenan reads his presentation. Young people in the region are eager to undertake and improve themselves. In contrast, youth unemployment in Latin America averages 16% compared to an average of 6% in OECD countries. Self-employment or informal work predominates in the region and tends to absorb the work of younger populations. In terms of cooperation, consider some points to take into account: 1. Education must be reinforced; young people without a diploma have greater difficulty in finding employment; 2. Entrepreneurship and employment go hand in hand; 3. Curricular contents must be updated; 4. Investment in training should take into account the most demanding careers; 5. Non-routine careers require digital technology; 6. Technological training should be constantly incorporated into the curricula to improve the labor market insertion process, taking into account that companies have difficulties in finding suitable profiles; 7. A technological ecosystem must be generated to satisfy both the population and the market.

**Federica Minichiello, director of the Laboratory of Innovation and Resources in Education (LIRE) of France Éducation internationale.** Her intervention focuses on two themes: technology and sovereignty. She recognizes that the health crisis imposed the need to create a digital ecosystem. This implies thinking about governance and the fact that the public and private sectors do not have necessarily the same interests. In addition, it requires identifying the actors involved at the national and international level (cooperation). It is necessary to identify what is the common objective that allows the strengthening of the ecosystem. For this, the dialogue must be conducted with lenders and investors who can meet these global digital needs and who can work in collaboration with specialists. Examples are the Business France programs in Mexico or Tunisia. Thanks to her observation in the field, she has been able to see that university collaboration is highly favorable. However, infrastructure and connectivity problems in Latin America are relevant. The vision of education in each region, its specificities, must be portrayed. At the European level, one of the axes that provides structure to digitalization is data sovereignty. In this regard, the digital sovereignty movement that exists between Latin America and the United States due to their geographic proximity should be considered. Data sovereignty places the individual at the center, as demonstrated by the Gaïa-X (Driver of digital innovation in Europe) program. Data circulates in the digital industry, so it must be protected. For this, cooperation is key as it allows data to be shared within the framework of virtual relationships of trust. All this is closely related to artificial intelligence. For example, the Netherlands is thinking about how to create open infrastructures for data protection.

**Colin de la Higuera, holder of the Unesco RELIA Chair "Free Educational Resources and Artificial Intelligence" at Nantes University.** In his speech, he proposed to deepen in two concepts: artificial intelligence (AI), of utmost importance in the ecosystem of technology for education; and the concept of networks, which is the fact that digital knowledge is shared and collective under established rules. That said, to what extent will AI lead to inclusive and efficient education? And what are the prospects for scientific cooperation and collaboration? The answers are threefold: 1. AI as a challenge in education; 2. Another challenge is to train and educate in terms of AI (i.e. the relevance of generating a digital culture

with a view to ensuring job placement); 3. Making the link with openness, without forgetting the risks. It is a certainty that AI will be part of education in the future. A simple and common example today is the simultaneous translation of languages thanks to different software applications. Language teachers and students face at least three difficulties: to what extent is its use authorized; what are the parameters and evaluation strategies; what is the point of training in applied languages if there is a more efficient machine? In mathematics it is the same with the development for example of the Photomath application that is able to solve equations. Other systems such as GP3 are able to construct a text in English after having entered 2 or 3 ideas (teachers are unable to recognize the difference between a text produced by this type of AI and a text written by a student). Currently, the speaker is part of a project that initially sought to train teachers to handle AI in the classroom. This experience has shown that what is needed is to teach how to deal with the presence of AI in education. With regard to the openness of AI, it was found that private instances such as Google are more open than the AI produced by universities, which is surprising. The problem is financial, reciprocity and human resources. What to do? You can either open up AI completely or cloister AI within universities. Although the internet giants will take advantage of the openness of AI knowledge in universities, if it is open, the university scientific community will also be able to do so and propose their own solutions (one can look at the example of Wikipedia as a collective and global form of scientific collaboration and knowledge). His conclusion is that AI is settling in. The speaker predicts that digital is coming and that the challenges will be even greater in terms of global educational resources in all languages. This, ideally, could be taken up by UNESCO.

**Jean-François Cerisier, director of the TECHNE research unit at the University of Poitiers.** He began by saying that whatever the public policies, the most advanced and seductive technologies in the world do not translate into real and existing uses. He considers that the round table invites the question: what is their value, who promotes them, under what conditions can they be implemented? His research unit has the capacity to analyze the evolution of policies by comparing France with other experiences in Latin America (Brazil, Mexico, Argentina, Chile). He proposes two periods that contextualize the colloquium: the post-pandemic period (period of tension) and the period of reorganization of school institutions.

From kindergarten to university, education will not be the same as it was before the pandemic. There is talk of a 10-year leap in the appropriation of digital techniques in the educational world. Thanks to the pandemic, the problems of digital inequalities have come to light. In this regard, multiple problems have been revealed: the situation of families without technological resources; the level of digital skills of teachers and students; the level of pedagogical creativity of teachers in contexts of digital emergency (individually and collectively). This shows the resilience of digital technology. Many challenges have been put to the test: the reorganization of time and space; the role of the teacher; the activity of the student; the technological companies that have shared and adapted their resources. The last point to which the speaker refers is the meaning given to everything digital. Based on research, it reveals that teachers feel disoriented about how to use digital tools, they lack direction in this regard. They wonder what their freedom of action is in virtual terms, but also in deontological terms. With what values and to build what kind of society can the era of artificial intelligence in education be ushered in.

Thursday, June 9

Agence française de développement, auditorium Mistral

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Round table 3 – Education in the service of the digital: for a citizen education, in relation to the new economic needs.

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**Armando Barrigueté, head of Educational Policy, Best Practices and Cooperation, Ministry of Public Education, Mexico [remote participation].** In 2019, UNESCO proclaims the international day against violence and bullying at school (including cyberbullying) under the initiative of Mexico, France and Morocco (193 Member States adopt it). 32% of the student population is a victim of violence and bullying or cyberbullying. Clearly, the non-enjoyment of human rights has an impact on academic performance levels but also on professional adult life. This undoubtedly has an impact on the SDGs of the 2030 Agenda established by the UN. In 2020, UNESCO seeks to establish a code of

conduct to combat cyberbullying. For this, academic research and consultations were conducted as well as materials aimed at both prevention and intervention in risk situations. In 2021, the Campeche agreement (sponsors: Mexico, France and Morocco; guest: Qatar) was signed within UNESCO. The main focus is the dissemination of the culture of peace. Work is currently underway to update this agreement in order to incorporate the approach of inclusion of indigenous peoples, Afro-Mexicans and women, in collaboration with social security and the Ministry of Health. Another Mexican initiative was the drafting of the Olimpia Law, which clearly establishes that the dissemination of information of intimate content is criminalized in Mexico. The name of the law is a tribute to Olimpia Coral, a woman victim of cyberbullying. Now the challenge is to move forward with programs, public policies and strategic axes. The speaker mentioned that Carlos Quenan was present at the conference in Campeche as a representative of "France International Education", which made possible the link between the two countries in this initiative. There is still work to be done in terms of raising international awareness, and cooperation is essential for this.

**Bérengère Stassin, lecturer at the University of Lorraine and member of the CREM.** Bullying and cyberbullying are two elements of the same problem. Firstly, as a specialist, she explains that bullying has always existed. It is defined by the high frequency of violent actions against a student in the school and academic environment. It can be perpetrated within a group of students, in the classroom, in the school restaurant but also on social networks. Violence can be verbal (insults, shouting), food or sexual (pornographic, betrayal of trust, intimate and private circulation). Behind the harassment or cyberbullying there is the firm intention to harm the victim of such aggressions in an asymmetrical context of forces. The difference between physical space and cyberspace is that the event can circulate virulently by the very nature of the internet: the action can be "liked, tweeted, shared, etc" and this in turn can be manipulated by artificial intelligence detection. In certain cases, the objective of an aggression in the school environment may be to film the event and then disseminate it. The case of the dissemination of girls' photographs has a significant impact on their personal, family and professional relationships. There is a high possibility that the photo will emerge again and again months after the event. This situation prevents the traumatic event from being

overcome. The speaker emphasizes the "like by mistake" that can unintentionally contribute to bullying. She also refers to the need of adolescents to be accepted by the group. Often, the purpose of making fun of a person is not necessarily to harass him or her, but to gain popularity. One of the programs that has been implemented in France consists of placing students at the center of the fight against bullying. In the school environment, the reasons for bullying revolve around, for example, gender stereotypes, fatphobia or hair color. Another factor at play is the fear of schools to take on the problem for fear of losing their prestige. This, and students' fear of being punished by their parents (confiscation of smartphones, or limiting access to connectivity and social networks) fuel the culture of silence.

**Cristine Gusmão, associate professor at the Universidade Federal de Pernambuco, coordinator of SABER technologies project (UFPE).** When she introduces herself, she explains that she is an electrical engineer and that she is at the head of the SABER research group, Educational and Social Technologies. The idea of this group is to develop tools, methodologies and techniques for digital work in healthcare. The main question that arose in her working group was how to improve the quality of the service offered in the courses. In 2020, the speaker explains that they conducted a survey in which they found that a considerable percentage of teachers do not use any type of digital tool in the classes they teach. How to increase this percentage? Today, after the health crisis, she notes that technological tools have become anchored in the habits of teachers, including in face-to-face education. Currently, the group is responsible for the training of 400,000 teachers, 264,174 of whom are direct beneficiaries in Brazil and other Latin American countries. In addition, 1103 teachers are trained in digital education thanks to 6 projects that have been launched. One of the projects consists of online teacher training in partnership with the government of Rio de Janeiro, with the aim of training basic education teachers (40,000 basic school teachers) so that they can guarantee distance courses during the pandemic. The teachers had to guarantee the classes but no one explained to them how to do it. So, they developed materials for distance education (12 specialists from Brazil and Portugal). Another project called +SABERES was conceived for engineering students who had to follow courses of curricular competence in computer science and active methodology. To obtain certification, students were required to present different

research materials and final products such as "podcasts" or "open sessions". Today these tools have become assets of the program and have been presented by students at international conferences. She suggests that a digital platform for the professionalization of the beneficiaries should be used to guarantee their labor insertion in new markets and thus achieve the evolution of their training.

**Jeannette Escudero, executive Director of Talento Digital para Chile.** This initiative is the result of a public-private coordination (companies, training institutions and government) for the development of technological capabilities of human talent and the generation of an IT labor ecosystem. It was born in 2019, with the objective of preparing Chilean society for a digital world and a digital economy 4.0. The project is advised by 14 leading members in digital business transformation. It refers to a study that reveals that today more than 50% of jobs are exposed to digital changes. These changes can be total or partial, for example: by technology replacement in terms of hardware and software, in commerce (e-commerce) but also in social and communication skills. She argues that nowadays, not only the technician is hired, but also the one who possesses the so-called "soft" skills of the 21st century: such as critical and social thinking. Talento Digital is responsible for retraining and improving people with intensive courses of 100 to 500 hours thanks to the Bootcamp methodology. The beneficiaries acquire high-level digital skills such as: programming, UX/UI design, digital entrepreneurship, IT specialties (cloud architect, cybersecurity), digital marketing and creative industry. It presents some data: they have 80,000 applicants; they have 5,000 places (candidates must pass a mathematical logic test); 66% of the women enrolled are part of the 60% of the most vulnerable population of the country; 36% of participation is female (in Chile only 10% of women have a technical education); 54% are between 26 and 35 years old (age of labor reconversion); 65% have a university degree (what happens with the university system that does not generate employment?). She also shares some results: 47% increase in income (6 months before taking the course, 6 months after taking the course); 64% success rate of the program (variables: employability, continuity of studies, self-employment); 15% dropout rate from the programs. The last figure can be explained for several reasons. One reason is that the beneficiaries are unemployed; some drop out of the course because they find a job in the middle of the course.

Another reason is that many perceive themselves as incapable of passing the course and obtaining certification. The students leave with a junior certification, the idea is that the companies continue to accompany them in the training.

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#### Round table 4 – Digitalization and inclusive practices: the challenges to bridge the gap

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**Ana Lúcia Gazzola, professor Emeritus at the Federal University of Minas Gerais and former Director of IESALC-UNESCO [remote participation].** The speaker opens her presentation with the following question: if we know what to do to overcome inequalities, why are the relevant public policies not implemented? She believes that the economic elites and the elites in power prefer to import technology instead of developing computer and technological training in their own countries. The health crisis has confirmed the level of technological dependence of emerging countries on developed countries. Gazzola identifies several problems that prevent the creation of a rich technological ecosystem: the divorce between industry, universities and technology; the brain drain. To solve these limitations, she mentions some challenges: 1. The technological revolution 4.0 is at the doorstep, higher education is required to transmit new skills to make the student an autonomous individual with the ability to solve problems and face changes, entrepreneurial, with a critical vision and a spirit of innovation; 2. The region has historical problems: digital divide and illiteracy; 3. In political terms, it is not possible to speak of educational excellence as long as there is social exclusion; 4. Knowledge is a public good and for this to be fully achieved, closing the digital divide is fundamental, as hybrid methodologies will be predominant in the future; 5. The processes of cooperation and circulation of knowledge should be strengthened: south-south, south-north-south cooperation; technological equipment should go hand in hand with training in the use of digital technologies.

**Paula Cubillos Celis, doctor of Sociology, project manager at the Education, Training and Employment Division of the Agence française de développement.** The health crisis affected the implementation of two projects that AFD had started in Ecuador (Qualice project,

2015) and in Mexico (decent employment and gender project). Both had been conceived under the face-to-face modality. The first was aimed at educating, training and professionalizing teachers (600) without a degree in education who are part of the intercultural bilingual education (IBE) curriculum (Spanish - native language). IBE has been implemented in Ecuador for 25 years. One of the lines of the project was to value the expertise of the oral transmission of the indigenous language, taking into account the language of intercultural relations, which in the Ecuadorian case is Spanish. The second project in cooperation with Mexico aimed to work with unemployed women domestic workers for the recognition and valorization of their profession (120 women from 3 Mexican states, 2019/2020). The development of these projects was interrupted due to the health crisis. However, it was decided to maintain and preconceive them due to the vulnerability of the target populations. The question then arose as to how to guarantee their remote execution? Taking into account that some beneficiaries did not have all the tools. For example, some had computer equipment but did not have access to electricity or connectivity (Amazon). Others had the software but did not have the necessary digital or language skills (in both Ecuador and Mexico not all beneficiaries were Spanish-speaking). Several questions arose regarding digital technology and our target population: can all participants write/read in Spanish? to what extent do they have access to the Internet from home? is their access to connectivity individual or collective? how do they learn to use computer tools from a distance? to what extent does a distance project tend to deepen inequalities? is everyone's level the same? what is a sociology of digital divides (gender, for example)? To give an example, in the Ecuadorian case, in order to solve these questions, it was not enough to coordinate with the Ministry of Education, it was necessary to contact the Ministry of Telecommunications. Or, for example, the beneficiaries in Mexico installed themselves in public parks with wifi so as not to lose the training. Lessons learned: 1. transforming face-to-face training into virtual training is not possible without a different underlying concept; 2. the digital divide must not deepen the pre-existing socio-economic and gender gaps; 3. Distance training is not necessarily more economical because the budget must compensate for inequalities of origin (tablets, wifi, software, individualized follow-up). As conclusions, the speaker explains that the move to the virtual modality must consider a multidimensional and intersectional analysis, seeking "multi-actor" solutions and from an

intersectoral approach. Only then can digital technology become a tool in the fight against inequalities.

**Leandro Folgar, president of Plan Ceibal.** CEIBAL has existed since 2007 and its motto is "learning from the future". It has gone through 4 development phases. Between 2007 and 2009, all schools in the country were connected to the Internet and each student was given a personal device to use. This took place within the framework of the "one laptop per child" project, which was reinvented and adapted to local needs (development of platforms, teacher training, content updating, pedagogical framework to take advantage of technologies, strategic interdependencies with the rest of society so that all this potential can be truly exploited). In 2019, one can see the change in technology used by teachers and students because of the pandemic. He disagrees with what was mentioned in the opening lecture regarding technology resilience. According to the experience in Uruguay, with the right infrastructure, great resilience is generated. For example, the variable of how many teachers say they use a learning management system jumps from 13% to 73% (between 2018 and 2020). This meant that there was a capacity in place at the time a stressful event arose. To cope with the health crisis, proprietary teleconferencing software was developed and embedded into the learning platform. In addition, agreements were reached with all the country's telephone companies to free up Internet data traffic. Uruguay became the only country with a public system both on-site and virtual during the health crisis. This was also achieved with investment and agreements with the private sector. What CEIBAL has done is to provide solutions to the major problems of education with imperfect technologies. Existing inequalities, such as gender inequality, should not be disregarded, and this is mostly due to cultural reasons. To build capacity requires: 1. consulting; 2. making guidelines and monitoring for students and teachers; 3. creating communities of teachers; 4. disseminating specialized information; and 5. opening resources. To conclude his speech, he referred to the "Jóvenes a programar" program for students between 18 and 30 years of age who are seeking to retrain in the technology sector. A study of this program reveals the existing gender gaps: the reason for women dropping out of the program is due to caregiving tasks and the self-perception that they cannot be successful in such a career. CEIBAL's success is due to the high level of institutionalism with a clear

independence between political, ideological, partisan and technical aspects. It should be noted that due to connectivity problems in the rural sector, the educational centers were only closed for 30 days. In this sector we worked with radio links; the advantage was that the largest telecommunications company in the country is public.

**Luc Massou, professor at the University of Lorraine and scientific and pedagogical advisor (DGESIP, MESRI).** His presentation focuses on free educational resources (REL), digitalization and inclusive practices. This link was officially established by UNESCO in 2019. Canadian universities define REL as pedagogical resources based on digital technology. They can take different forms: textbooks, media, evaluation tools such as questionnaires and even complete courses. Their particularity is that they have been conceived under the criterion of open science and open education. This not only implies that they are freely accessible, but also that they can be reused, modified, updated, contrasted with other sources according to the teacher's needs. After these changes are made, the resources are again made available to the university community in order to re-enter the resources circuit. The REL project highlights the futility of each university or researcher working in his or her own corner. During the health crisis and in a brutal and violent manner, all educational centers felt the urgency to produce materials for the transmission of knowledge at a distance. Hence the relevance of REL, where the idea is that what already exists can be reused and implemented from a logic of opening resources. The appropriation and reappropriation allows to improve the resources and to position oneself in front of their production in a reflexive way. Medicine is one of the careers where the sense of mutualization of knowledge and open educational resources has been most established. To conclude the presentation, the speaker presented three examples of REL that have been developed with the support of MESRI: 1. REL search engine; 2. FUN resources platform; 3. All are open to French-speaking regions and are linked to Moodle (more than 90% of French universities work with this platform).

**Luis Eliecer Cadenas Marin, RedCLARA executive director).** The speaker focused his presentation on cooperation between Europe and Latin America, their capacity to generate digital infrastructure and the possibility of closing the digital divide that exists between the two

regions, which is also present in Latin America internally. He referred to the BELA project, which has existed for more than 10 years and which last year inaugurated a direct connection between Europe and Latin America. During all this time, the connections and technological relations between the two regions went through the United States. It is important to mention that the dominance of the giant GAFAM at the global level. The digital divide has to do with connectivity and digital transformation. This causes the gap to multiply exponentially. It is well known that technology is transforming the productivity of countries globally. He wonders how financial and technological cooperation between Europe and Latin America can be achieved. There are many things to take into account: the way in which companies wish to invest in order to make a technological leap; the States are telecommunications providers; competitiveness in the market, return on investment and the problem of funds with universal access. The BELA project had an investment of 38 million euros (Europe: 24 million; Latin America: 14 million). Europe can cooperate with its expertise in metadata management and excellence in Internet service quality. Public-private partnerships should also be considered. These have enabled the deployment of fiber optics, for example, or the distribution of telephone chips so that students can access state-of-the-art technology. Many countries have benefited from the cooperation programs implemented: Chile, Brazil and Ecuador (Ecuador alone benefits one million students). We are thinking of expanding the cooperation process to Central America and the Caribbean (here there are very few companies offering telecommunications services). The CLARA operator can act as a neutral operator to promote incentives and benefits for all stakeholders, including large companies. All stakeholders are then called upon: governments, civil society, telecommunications providers (large and small), international and local banks. The use of technology must be adequate. The idea is not to replace the face-to-face classroom with virtual classrooms, but to open the processes to generate technological collaboration that limits the unnecessary repetition of processes.