

Education and social progress

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The Center for Excellence and Innovation in Educational Policies (CEIPE) is a think-and-do-tank based at one of the most prestigious private schools in Brazil, the Brazilian School of Public and Business Administration of Getulio Vargas Foundation (EBAPE FGV).

In recent years humanity has faced many threats such as growing inequality, populism, aging societies and the narrowing of the demographic bonus (when the working population is larger than the non-working). But there has been another threat in the headlines, perhaps as prevalent as populism and its response to the so-called migrant crisis: the extinction of jobs through automation and robotization in a phenomenon branded “The future of work.”

Don't get me wrong, I don't think the loss of jobs in some companies or the reshoring of others (since it has become cheaper with automation to produce goods back in the developed world) will have the cataclysmic consequences foreseen by Frey and Osborne [2013], who have raised alarms about the potential economic upheaval of computerization. Many positions might be created with the advances in artificial intelligence. The problem is that they won't employ the same people who will be out of work, since the required skills will be completely different.

It is, after all, not just drivers who face losing their work in the near future with the prospect of semi-autonomous cars, buses and trucks on roads across the developed world. Legal professionals may see their numbers diminish, as clerical work traditionally done by novice professionals is transferred to machines. Jour-

nalists may also see changes due to narrative algorithms, where facts and dates only need insertion to create simple news stories, a job that demands lower skilled workers at lower wages. What will come next? Certainly more job extinctions in other branches, as machines learn to do ever more sophisticated tasks.

In this context, it is extremely important for the G20 to think about how to prepare the workforce of the future for this new reality, where not only new professions might emerge, but the old ones (or at least their jobs) might be extinguished in successive waves. This is not only a matter of rethinking curricula in K-12, in technical vocational education and training (TVET), and in higher education, but also of constant skilling, reskilling and upskilling of the workforce.

»Education can build bridges and the vocabulary for a more empathetic dialogue.«

In times of machine learning and algorithms that substitute intellectual work, it is urgent to define exactly what needs to change in the education and training offered to the present generation of learners

who will soon join the workforce of tomorrow.

Although education has a major role in preparing the new generation for the world of work, its role is not limited to ensuring future employability or entrepreneurship. It addresses all that is needed for a healthy, meaningful and active adult life, including the practical exercise of citizenship.

In times of acrimony and populism fuelled by a sense of alienation and the loss of a perceived golden past, education can build bridges and the vocabulary for a renewed and more empathetic dialogue. It can also foster cultural flexibility and develop the skills that emphasize what makes us human.

DEVELOPING SKILLS TO PREPARE FOR THE FUTURE

Joseph Aoun, the president of Northeastern University, outlines in his book *Robot-Proof: Higher Education in the Age of Artificial Intelligence* (2017), what he calls a “learning model for the future.” He cites three new literacies that will be essential: technological literacy, or a knowledge of mathematics, coding and basic engineering principles; data literacy, or the ability to understand and utilize big data through analysis; and human literacy, which equips us for social interactions, giving us the power to communicate, engage with others and assess our “human capacity for grace and beauty.” He adds to this four “cognitive capacities” that people need in the digital economy: systems thinking, entrepreneurship, cultural agility and critical thinking. Systems thinking is a means to create new jobs as old ones are filled by machines. Entrepreneurship is a “creative mindset.” Cultural agility is the capacity to not only

understand the complexities of the values and attitudes of different countries and local contexts, but also to show empathy and discretion when dealing with people from all over the world. Critical thinking is about making judgments through rational analysis.

Even in K-12, well before people enter higher education, competences may be taught and learned to prepare them for the future. These do not compete with the basic literacies that schools develop today, but rather complement them in important ways and demand changes in the way we teach.

These competences and attitudes include as a pre-requisite curiosity, creativity and imagination, qualities that make us human and thus able to compete with machines and promote social progress. To foster these abilities, teaching must change in a substantive way; after all, it is not through rote learning that we become creative thinkers or develop the curiosity needed for deep learning. Along the same lines, ensuring that the youth of the 21st century remain in school and do not drop out especially in the developing world, where young people abandon schools not only to work, but due to lack of interest in what is being taught, demands much more engaging classes.

The new competences also include collaborative problem solving, which demands not only the ability to incorporate other people's ideas, but also the preparedness and intellectual leadership to push for the student's own contributions. Another set of competences that can be learned at school are social and emotional skills, especially perseverance, resilience, empathy and self-efficacy. The latter were certainly needed for traditional education

as well, but they have become increasingly important in a context of increased inequality, political anger and polarization.

In a recent paper, the OECD (2018) has added an important attitude and competence that should be developed in different levels of education: student agency. It refers to the student's perception that she is responsible for her own learning – and that includes a commitment to building her own future. This certainly addresses the need for developing a “learning to learn” strategy, but also means engagement with her community and with our shared human condition, which is best captured in a global citizenship rubric.

»Access to schools does not ensure fairer chances of moving up the social ladder.«

I bring here two interesting examples from my own country, Brazil. As we are struggling to ensure quality education where the PISA results have positioned us among the 20 worst performing economies participating in the last edition of the international test, in 2018, one of the poorest states has shown quite different learning outcomes. Among its less affluent cities,

Sobral stands out as champion in learning with solid curricula that includes social and emotional skills and innovative approaches to learning. This experience has been scaled up in the whole state and our last national assessment among the 100 best performing schools in the country, 82 are in different cities in Ceará.

EDUCATION AND INEQUALITY, PROMOTING SOCIAL PROGRESS

Education policies can be designed so as to build equity or, on the contrary, to increase social inequality. In various parts of the developing world there is a growing “apartheid”, separating children who have access to elite schools from those who receive second-class instruction in low-quality school settings, with low-paid, frequently absent teachers, often accompanied by low expectations. As a result, those societies, already encumbered by large inequalities in income and in average years of schooling of the adult population, not only reproduce the prevalent unfairness but even increase it.

Thus, just having access to schools does not ensure fairer chances of moving up in the social ladder. When we don't set up the system to ensure equity, countries experience not only greater inequality and exclusion, but also greater violence. In many of these nations, the result of poor schooling in vulnerable areas is an increased number of young people who are neither at school nor at work. Some of them join the growing cohorts of drug-dealers or militias, as in many countries in Latin America and Africa.

To ensure that equity is built into education systems, many measures should be taken, such as:

- Investing in early childhood development, through the integration of social policies, including education, social protection and health, from pregnancy to 6 years old, with initiatives such as household visits, vaccinations, conditional cash transfer systems, parenting schools, quality nursery- and pre-schools.

- Creating a system-wide clear curriculum that defines the competences to be developed by every child and adolescent and that also addresses the needs of struggling children.

- Ensuring that the best teachers and principals work at the most challenging schools with quality materials in a safe and healthy learning environment, as done in schools in England, some states in the US and in Brazil

- Including all school-age children in the system and following up with those who may have dropped out of school, with the support of the social protection system. Promising practices to bring back adolescents who have left school have been developed in slums in the city of Rio de Janeiro, in different provinces in India and in even in the US.

- Establishing provisions for kids with disabilities, ensuring that schools include them, preferably in regular classrooms with the additional support they need.

- Structuring teaching and learning in areas where good preservice education and proficient teachers are not available, including with the use of technology to support teachers.

Those are just some measures that the G20 could consider to help build more equitable school systems, but it is important to know that there is no silver bullet to ensure quality education for all. There is,

however, one approach to be avoided: accepting that we should offer second-class teaching and learning to disadvantaged kids.

»We should include personal freedom, nutrition and safety as elements that schools should promote.«

But social progress is not only connected with equity. When, in 2010, some world leaders got together to create a measure of development that would incorporate social and environmental components, they created the Social Progress Imperative, which later became the Social Progress Index, to deal with basic human needs, well-being and opportunity.

If we are to build on the ideas behind this indicator and connect them to education, we should also include personal freedom, nutrition and safety as elements that schools should promote. In many countries, for example, free lunch is provided to underprivileged pupils in public schools, and in some of them, such as in Brazil, to every student attending a public school. Campaigns to ensure that good nutritional

habits are acquired in infancy, preventing malnutrition, stunting and obesity, are certainly important goals associated with programs.

As for personal freedom, quality education contemplates the competences to be developed in kids, especially “student agency”, i.e. learning to make choices, take responsibility for their own schooling and participate actively in their communities. The exercise of personal freedom demands not only laws and regulations that protect rights, but also an informed citizenship that supports them – and this should be taught in schools.

The same approach should be taken toward well-being. Good curricula incorporate self-care and health promotion. But there is also a recommendation to be taken into consideration: Schools should not be places where toxic stress is present even within an ill-founded intention of improving learning. Mental health initiatives are important to both students and teachers.

Along the same lines, safety is a concern, both to ensure that pupils are protected during classes and that they learn safe behavior. This includes not harming others and not endangering their own lives and health. This theme could and should be included in what is taught in schools and may demand the support of qualified professionals, in addition to teachers.

Schools in conflict areas, as mentioned before, such as slums controlled by drug-dealers or militias or in countries stricken by war, should benefit from some kind of affirmative action to ensure that children are not only protected in their regular schools or in refugee camps, but also out of respect for their right to learn.

But although social progress should be sought by the way we organize curricula, teaching, and learning environments, it is as an integrated imperative, an organic pursuit, that in the long run education helps promote social progress. With every child in school learning what is expected at her age and grade, developing her full potential, social progress happens naturally.

That is why quality education should be prioritized among all public policies. Inclusive development starts with education

and children should be the main concern in any policy area, even in times of social unrest and uncertainty about the future.

At the end of the day, children and adolescents will be the next generation to try to build a better world, facing a situation where populism is growing and work as we know it is being threatened on a growing scale. It is better to have prepared them to find a different way of doing this than the way we, the present generation in charge of fixing the world’s problems, might eventually have failed at.

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