Deep transformations are substantially affecting the world of work. The latest stage of the technological revolution (characterized by exponential growth of digital technologies and robotics and application of new information and communication technologies and artificial intelligence to industry), the global reconfiguration of production chains and the need to shift to an environmentally sustainable economy have considerable implications for education systems, technical-professional training, work and production, inclusion, and social protection systems.

The aim of this lecture is to discuss the impacts of these transformations on the world of work. Assuming that impacts are not determined a priori, but that conditions to improve social and labor protection vis-à-vis current risks and opportunities are required, a reflection on their eventual implications for the health of workers is necessary.

The impacts of technological changes on the world of work are not determined a priori, because they considerably depend on decisions made by relevant actors within the limits set by the characteristics of the production structure and the organization of work, regional and international contexts and political and institutional factors, such as regulatory mechanisms. Nevertheless, there seems to be a consensus on that such impacts will be profound on the level and quality of jobs, the characteristics of labor relations and the competencies required from workers. As a result, impacts will also extend also to the education system (including technical and professional training) and to the access to and coverage by social protection systems.

Just as in the past, also the ongoing phase of change in the world of work involves destruction, creation, replacement and reconfiguration of jobs, which net balance is still unknown. This is a complex process that demands multidimensional responses relative to various aspects (regulatory frameworks, active labor market policies, education and social protection systems, bargaining processes and social dialogue) likely to anticipate consequences by encompassing older and also emerging problems.

The available evidence on the impacts of the ongoing technological revolution on work is still limited. The various projections (mostly from industrialized countries) — particularly as concerns the amount and type of jobs which will be destroyed, created or transformed — are rather heterogeneous. It is believed that transformation will mainly affect low- and medium-skilled jobs and routine activities (not only of manual, but also of cognitive nature) resulting in more precarious and informal jobs.

In the case of Latin America, transformations are occurring within a labor market already characterized by high rates of informal, precarious and unprotected work and impregnated by profound structural inequalities (of gender, race and ethnicity, age, and territorial, among others). Therefore, an eventual loss of formal jobs might result, for instance, in the growth of the informal sector rather than in unemployment as of necessity. In any case, the need to develop education, technical and professional training and workers’ protection mechanisms is even more urgent in the face of such changes, to hinder the ongoing inequalities from becoming even more serious.

To summarize, the present and future of work do not only depend on the characteristics of the new technologies, but also on macroeconomic dynamics, the forms and organization of work and political and institutional factors, including the actions of governments and public institutions, labor laws, trade union organization and the ability to make space for collective bargaining and social dialogue among actors within the world of work (governments, employers and trade unions).
In addition to industrial and technological policies, governments should play an active role in the promotion and orientation of change in regard to three aspects at least:

• First, promotion of adequate labor legislation and of space for dialogue and consensus in regard to the processes of transformation within the world of work, strengthening instruments such as collective bargaining and the minimum wage and protecting the freedom of association and trade unions

• Second, promotion of more equitarian distribution of the potential benefits of new technologies for education, health and communication, among other sectors, to enhance social inclusion

• Third, strengthening high-quality universal social protection systems for workers, their families and the overall population at the time of and during the transition

Within such context, education and technical-professional training gain in relevance as a function of the new characteristics of jobs and the new skills required in association with technological change1.

One should bear in mind that the health of workers is strongly related to the working conditions (risk factors and hazards inherent to the nature and process of work), occupational social determinants (employment, contracts, salary, social protection, education, etc.), behavioral risk factors (individual lifestyles) and access to healthcare and occupational health services. A reflection on the impact of the ongoing transformation within the world of work and its future implications for the health of workers should necessarily consider these various dimensions.

The characteristics of jobs are essential to the health of workers. A high-quality job affords financial security, possibilities of personal development, social relationships and self-esteem and protects against environmental and psychosocial hazards, all which factors are relevant to health6. In turn, precarious jobs and poor working conditions (informal employment relationship, low salary, insalubrity and hazardous work, etc.) might impair the physical and mental health almost as much as unemployment7. Several studies indicate that high-demand, low-control jobs and lack of recognition might trigger physical and mental problems8, and that work-related stress is associated with higher risk of coronary artery disease9.

If the ongoing changes in the world of work — which will seemingly become even stronger in the near future — are not attended by adequate retraining of workers and extension/adjustment of social protection systems, social dialogue and negotiation, they will tend to have very negative effects on the health of workers. The foreseeable growth of the precarious and informal work rates — with particularly negative impact in terms of job insecurity and more difficult access to healthcare, retirement and pension — is a particular cause of concern in Brazil and Latin America as a whole.

The situation of working women and the implementation of gender-centered measures — such as maternity protection, creating care integrated services enabling attendance to technical and professional training programs, fostering the access of women to careers in science, mathematics and engineering, eliminating gender stereotypes in professional training systems and active market labor policies — demand especial attention during the transition10. Also advances toward consensus and agreements on the need for universal social protection including all workers and their families as a condition to ensure rights, equality and sustainable development are essential.

REFERENCES
