

Committee: Group of twenty

Topic A: The labor substitution as a result of the automatization and modernization of the industry

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INTRODUCTION:

The committee emerged in response to the financial crisis of the nineties, the forum for economic cooperation G20 or Group of 20 emerged in Berlin, Germany; having as an objective to give an adequate financial representation to emerging countries internationally. Comprised of the 20 dominant economies of the world, the G20 summit has among its functions to find solutions to global problems within the world economy, promote free trade and economic growth, all in a coordinated manner with member countries. (Guterres, March 7, 2018.)

This committee is formed by 19 nations and the European Union, representing 28 countries of the Europe continent letting an extensive view of the agenda issue. The importance of this series of meetings lies in the search for agreements to improve and consolidate the financial system to discuss the course of the economy worldwide. Of equal or greater importance that this one is focused on the future economic crises, as well as in the regulation of the different institutions of economic development.

Automation is the process in which different technologies are used so that human intervention is reduced or becomes null. These technologies help to control and supervise processes at small and large scales, making devices, machines, systems to operate automatically.

Involving the topic within the committee, the substitution of the

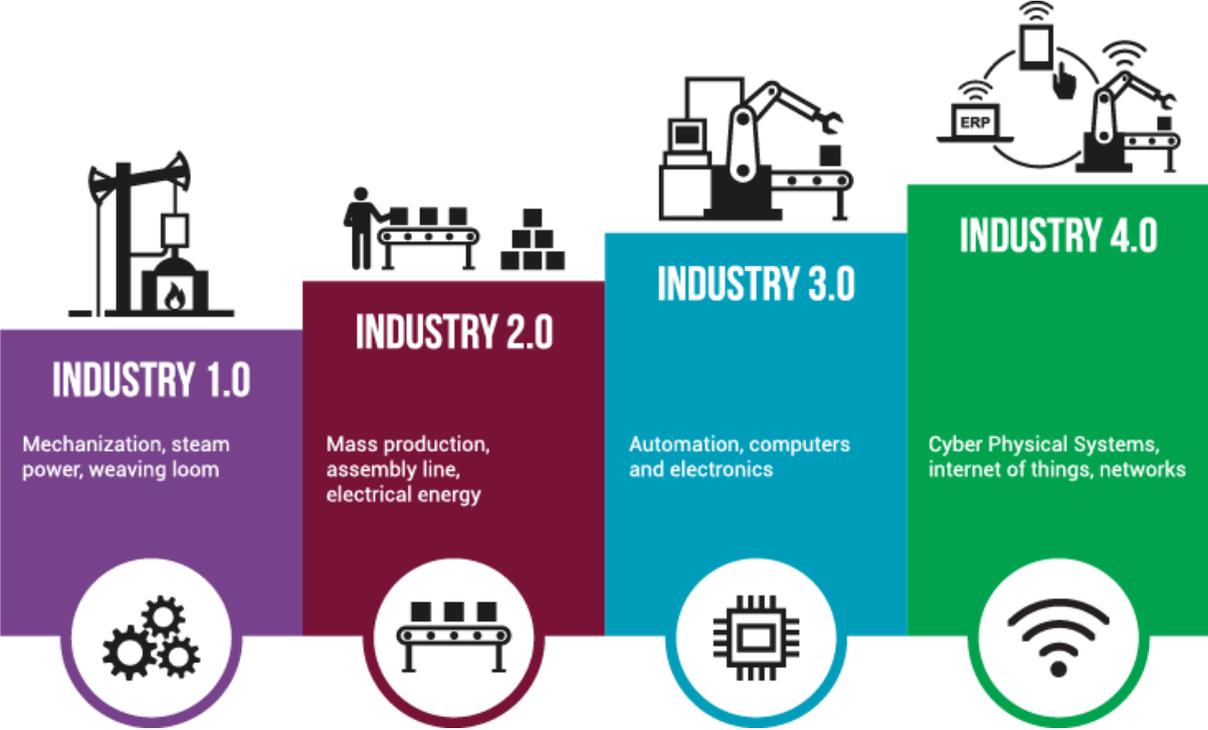


labor force is considered a problem, unemployment is increased and the economy is restored; The increasing and innovative advancement of technology in such an accelerated manner has created new criteria by not evaluating it efficiently, this could cause a new trend to change the traditional model of work. The modernization of the industry is reflected in a modern structure of both, logistics and the physical environment that the company can project at the market level. These transformations occur thanks to an administrative change and a machinery new models that normally operate some industrial process.

For countries with a large number of industries, the fact of having automated processes and improve their workspaces gives them several benefits in terms of production, such as lower manufacturing costs, increased profits and more efficient resolution.

HISTORICAL BACKGROUND

Industrial Revolution



The first industrial revolution began due to the lack of employment in England during the 1720's. Given the situation, people began to develop new ways of manufacturing to improve the quality of products and decrease the time of production in a wide range of categories. Steam was a powerhouse during these period of time, coal was also an important factor in powering



machines. Thanks to the first industrial revolution, people began using machinery not only in the laboral field but also in their homes, works and daily lives. Some of the main inventions of this time were the telegraph, better sewing machines, steam machines, telephones, mass production and home products powered by coal and steam.

The second industrial revolution was led by the multiple gaps left by the civil war, such as unemployment and an over production of weapons at the end of the 1800's. Given the constant decreasing of the economy, multiple decisions turned it in an ever-blooming growing economy. Steam stopped being a powerhouse, instead electrically powered plants began to grow. Instead of single inventions, industries began to grow as a whole, such as coal, iron, railroads and even textiles. Petroleum definitely and completely innovated this era, by showing that steam and coal weren't the only ways to power machines and cars.

The third industrial revolution began by the 20th century, with new and ever-evolving inventions that not only involved enginery and machinery but also clever software for machines to smartly operate themselves. Robots and web-based devices began taking the place of multiple factory workers. Programming and engineering became some of the most requested careers in the working field. The fossil and oil use was normalized in most fields. Finally one of the most history changing inventions was that of the internet and websites. This connected the world even further giving life to a new era.

The G20 will come of age this year since the inaugural conference in Berlin in December 1999. Last weekend's summit in the also German city of Hamburg has thrown new evidence on how global economic governance seems to work in this 21st century of accelerated uncertainties. As happened at the time with the EU, on different occasions with the IMF, or with the G20 itself, the relevance of these multilateral institutions and their usefulness come to light when economic or geopolitical tensions reach alarming levels. In intermediate periods, they move between irrelevance and expectative.

On November 14 and 15, 2008, the first G20 Leaders' Summit took place in Washington, United States, focusing mainly on



strengthening financial regulation.

On April 2, 2009 in London, United Kingdom, the G20 leaders met for the second time with the priority of establishing coordinated fiscal and monetary stimulus measures to avoid the danger of a global depression.

On September 24 and 25, 2009 in Pittsburgh, United States, the G20 leaders discussed more actions to ensure a stable and sustainable recovery from global financial and economic crisis.

On June 26 and 27, 2010 in Toronto, Canada, the 4th G20 Leaders' Summit was held under the theme "Recovery and New Beginnings" with the aim of developing a framework for strong, sustainable and balanced growth.

On November 10 and 11, 2010 in Seoul, South Korea, the G20 leaders met for the fifth time under the theme "Shared growth after the crisis". The discussion on measures to steer global economy out of a recession was at the center of the meeting's debate.

On November 3 and 4, 2011 in Cannes, France, the leaders of the G20 met to discuss possible measures to resolve the main issues that affected the economic recovery and financial stability in a time of intensified tensions and considerable risks of falling for the global economy.

On June 18 and 19, 2012 in Los Cabos, Mexico, the 7th G20 Summit was held with the main theme of the Eurozone crisis and other important global issues, including the strengthening of financial systems, development, trade, and employment.

On September 5 and 6, 2013 in St. Petersburg, Russia, the G20 leaders convened their eighth summit, with the host country, Russia, establishing the promotion of economic growth and job creation as the main objectives of the meeting.

On November 15 and 16, 2014 in Brisbane, Australia, the G20 leaders met for the ninth time, establishing as a priority of the summit the increase in global growth to bring a better standard of living and quality jobs to the peoples of the entire region. world.



On November 15 and 16, 2015 in Anatalya, Turkey, the G20 leaders discussed priority issues of global economy and promised more collective actions to achieve strong, sustainable and balanced growth for the benefit of all.

CURRENT RELEVANCE

Nowadays, with the arrival of Industry 4.0 modernization goes faster. Industry 4.0 refers to the fourth industrial revolution, where the introduction of digital technologies to companies is wanted.

With the new development of technology and following the production processes where digitized based on information technologies are important and the Internet connection of things (IoT) is the new tool of controlling , the production of automatized industrial robots reach 1.8 million, so in three years it is estimated that they will have an increase in production of 2.6 million.

Industries prefer the use of automated industrial robots because of different reasons. The speed is a factor that affects the number of manufactured things produced in a day. The production process is constant and fast with the use of machines, while workers perform their jobs at their own pace, these make more attractive to industries to buy more robots than contract new people. Another reason is the accuracy. The accuracy reduces the error range that a great amount of the product can have. According to robot works Overall, industrial automation contributes speed and accuracy to a workplace, it reduces a significant time to the manufacturers that can occupy it in the production of more goods. Robots can cover jobs that may be unsafe for a human being reducing the cost of first aid financed by companies.

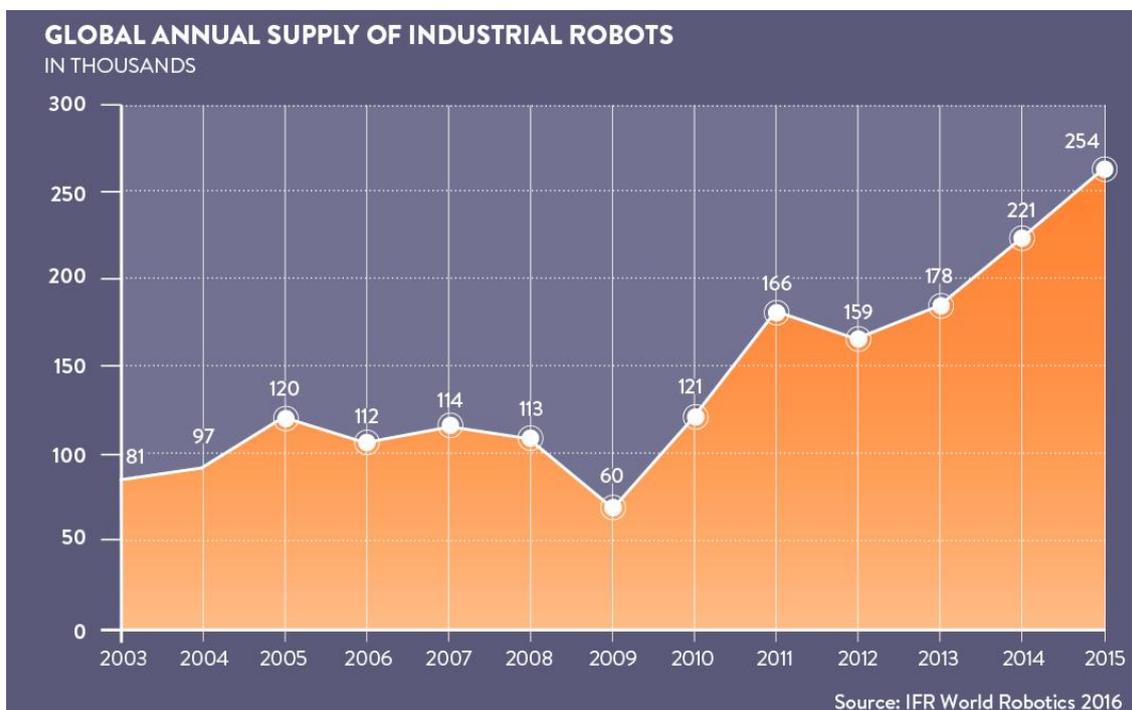
In countries with a large amount of Industries, the advantages of automatization are notable. The number of services and goods are increasing in a shorter period of time. The industries are creating a big income incrementing the GDP but decreasing de GDP per capita.

Despite the advantages, a number of disadvantages have also been seen. At the beginning they have to be a strong investment



for the purchase of automated industrial robots, so not everyone has access. They consume a lot of energy and fossil fuels in a factory producing extra pay and contamination.

According to a recent report by the World Economic Forum , by 2025, cognitive technologies such as robotics, AI, machine learning and automation will replace 7% of jobs in the country. This will represent that at least 75 million people around the world will lose their jobs, mostly the manual jobs will be substituted by machines, however, this also brings an opportunity according to the world economic forum, it considered that automatization will create 133 million for maintenance of machines, but it is estimated that at a worldwide level there are not many persons capacitated for this jobs.



This chart represents the rise in the supply of industrial robots since 2009, with a sharp rise in distribution since 2012. The data shows that 254,000 robots were supplied in 2015 and its predicted for this figure to continue to rise in the future. And the numbers keep growing.

Even though robots have increased efficiency in many businesses they have also increased unemployment, robots can't deal with unexpected situations and they cannot improve their jobs outside of the pre-defined programming.



INTERNATIONAL ACTIONS

An estimate by Accenture (a multinational company), argues that the IIoT could generate 14.2 billion dollars by 2030. It explains that companies that introduce automation and more flexible production techniques in manufacturing can increase productivity by 30% and obtain savings of more than 10 % in predictive maintenance, while reducing maintenance costs by 30% and eliminating equipment failures by up to 70%. A study carried out by Ball State University revealed that around 87% of the jobs producers in the manufacturing industry were due to the factories becoming more efficient. The main engine of greater efficiency in factories were the automation and better technology. The other 13% of people in the United States were because of the trade.

The Bank of Tokyo introduced a medical robot. It has a built-in camera and microphone that has visual recognition. It also has a remote control, which is able to identify 19 languages. The robot can interact and communicate with patients and provide answers to their questions. This type of robots can give medical support to people working in industries without risking their lives.

Germany has deregulated its inflexible labor markets, which means that its federal unemployment agency has transitioned into a “job-matching entity”, in which institutions are able to connect companies and businesses that are looking for people to occupy a position among their employees.

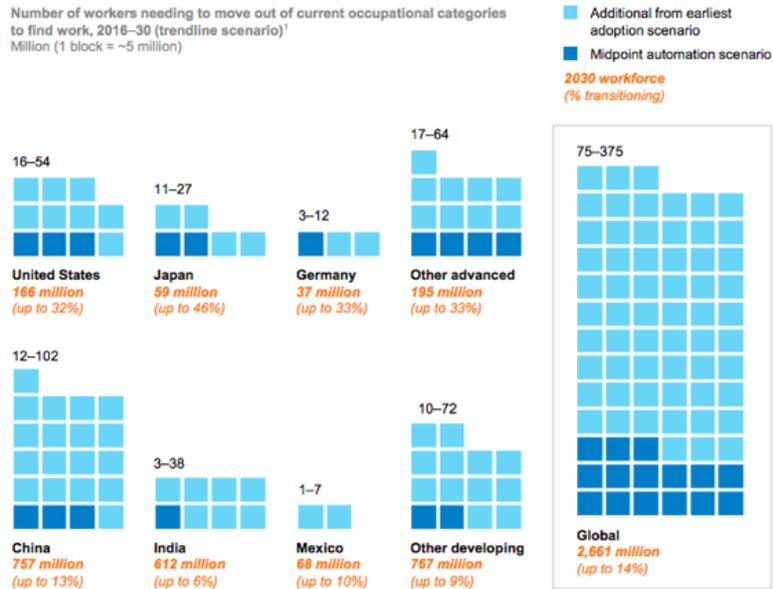
According to the McKinsey Global Institute, around $\frac{1}{5}$ of global workforce will be affected as this represents a real problem for developed countries, such as Germany or the U.S since most of those displaced workers will migrating to other industries, which is why this institute urges governments to create plans to retrain citizens.



Exhibit E6

Globally, up to 375 million workers may need to switch occupational categories

Number of workers needing to move out of current occupational categories to find work, 2016–30 (trendline scenario)¹
 Million (1 block = ~5 million)



¹ Some occupational data projected into 2016 baseline from latest available 2014 data.

SOURCE: U.S. Bureau of Labor Statistics; McKinsey Global Institute analysis

Several institutions such as the MIT’s Media Lab have made research on the possible consequences of automation in small and large cities in order to anticipate possible changes related to machine learning or robotics its relationship to the disruption of jobs.

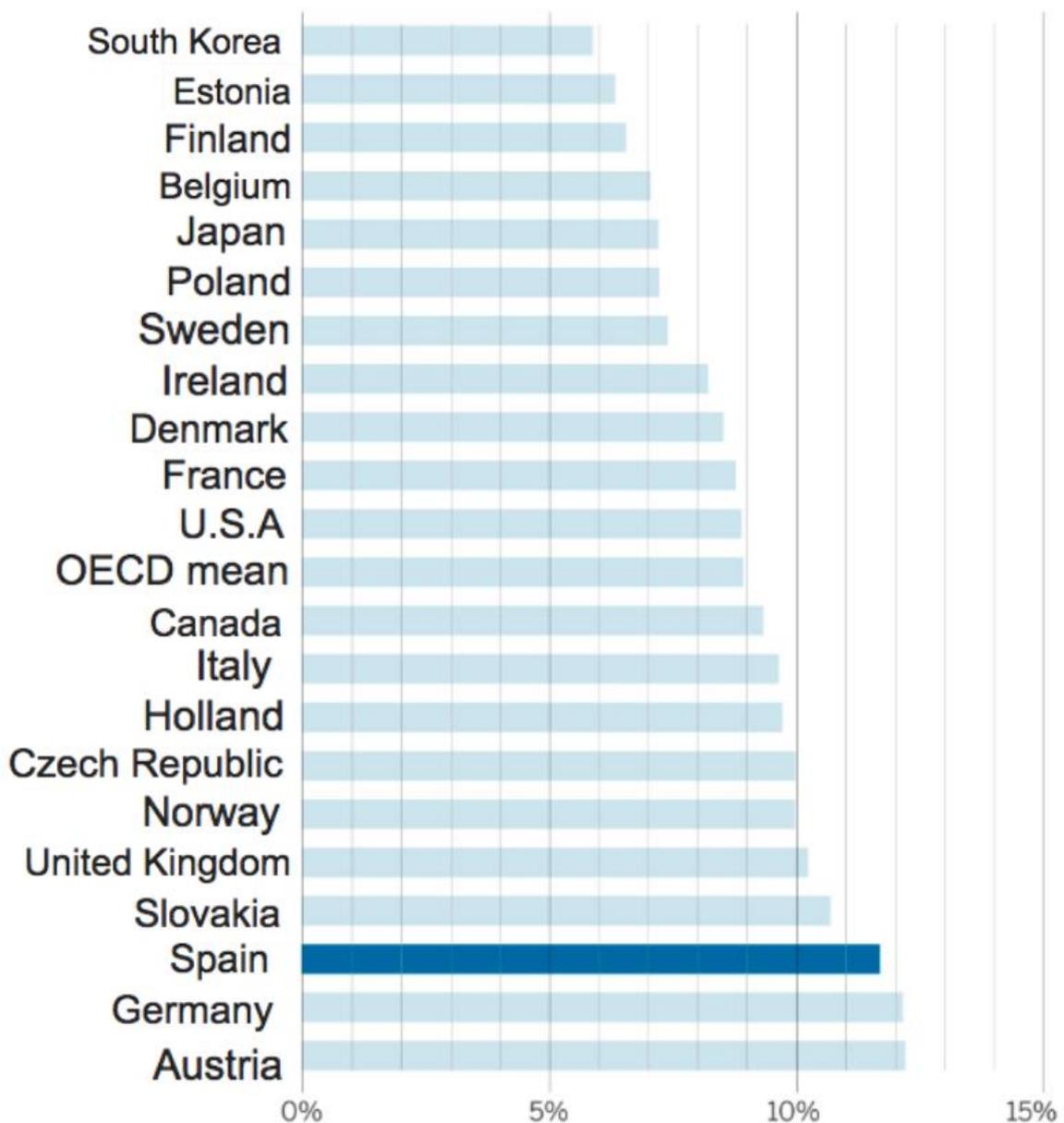
A study from the National Bureau of Economic Research has examined the effects of the industrial automation in the U.S. Throughout history, it was found that each robot means the loss of between 3 and 5.6 jobs. However, the U.S. Treasury secretary does not consider that industrial robots will have a negative effect on employment.

But according to the Organization for Economic Cooperation and Development (OECD), Austria, Germany and Spain will be the most affected by the fourth industrial revolution. In these countries, more than 12% of the jobs could disappear. In Belgium or Finland, the percentage is 7%. Spain has a percentage of about 12% and Austria follows it.

In China the industrial revolution has been remarkable. An example of this is its Foxconn automobile company, which has a plan to renovate its production sites with robots and replace 60000 of its employees.



Percentage of workers who will lose their jobs due to automatization



Several countries have been trying out a universal basic income, in which the government gives individuals the funds to cover basic living costs, this is seen as a possibility to help people who may be displaced by automation, however larger tax revenues will be needed for countries to help this part of the population significantly.



POINTS TO DISCUSS

- Long-term impacts in the international economic field
- Laboral future of people whose works would be taken over by automated systems and possible changes in everyday consumer's life.
- Possible changes in the supply and demand of products and services
- What are the social consequences of the replacement of labor for robots in the industry.
- The quality of life index
- Human Development Index
- Potential adaptations in the education given to future generations in order to be ready to face an automated labor world
- How does the replacement of labor for automated machines could affect the economy of a country?
- Respect article 23 of the Universal Declaration of Human Rights on work.
- Advantages and disadvantages of the use of machines instead of humans.
- Possible effects in the environment caused by automatization and modernization of the industry.
- Does the automatization and modernization could contribute to the formation of an economic crisis?



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