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Abstract

The intent of the paper is to understand which new scenarios and future figures could emerge with the Corporate Governance Industry Revolution 4.0, but also which professional figures could disappear, decrease in number or transform; also prefigure what changes could occur in the way of work performance, of new and old professions, in relation to the inevitable changes in production processes that will be introduced by this new industrial revolution. My point of view, of analysis, is clearly that of union representation, in all forms, and of workers. The question that I and I hope all the components of the trade unions are asking is: will we be able to be able to understand, represent and protect all the workers who will be involved in Industry 4.0? Clearly the writer does not pretend to find solutions, although from my observations, experience of representation can certainly provide suggestions and ideas, aided by the study and research still conducted by the major unions such as: CGIL-FIOM, CISL- FIM and UIL-UILM in Italy.
1. INTRODUCTION

From the study of the searches of the acronyms mentioned above, and also from other sources, scenarios and perspectives often conflicting with each other have also emerged. Some acronyms describe or give greater emphasis to the fact that the new production processes will lead to a greater involvement of the worker, to the formation of work teams, in which there will be a horizontal flattening of the pyramidal hierarchy, the end of Fordism, of alienation and of the fragmentation of work, an approach between the various figures, in which a design engineer must involve, listen to and follow the instructions of both the worker and a qualified technician. The future worker, in turn, will also have to possess the soft skills, this term means digital and multimedia skills and abilities, which are acquired and developed also outside the factory and from the office. But there is also another more pessimistic analysis in which the worker will be depleted of his knowledge, of skills on the job (those acquired through experience in the workshop), his knowledge is acquired and stored on a Cloud and transmitted to a program, algorithm, which in turn commands a robot or an intelligent machine, so the skills of the classic skilled worker have been transmitted to the machine, capable of performing its tasks efficiently and even faster, thus the only one or the main task that the new worker (user worker) will have to do is monitor the execution of the machine, using a tablet or a display. It is clear that this type of worker will be easily replaceable, and that if this were the case, it is not obvious that with industry 4.0 relocations from emerging countries will return to Western countries again, as is the goal of the European EFFRA Horizon program 2020, at least not for all figures. So the challenge from the trade unions towards industry 4.0, to understand how to represent the old and new professional figures, will be to understand well, in the first instance, what the changes in production processes will be, and to defend purchasing power of wages and workers 'rights and the needs of the companies' production processes, to ensure that companies are competitive, building a dialogue between the various forces in the field. For this reason, every governance model cannot fail to take into account appropriate business management models able to identify and classify future events, opportunities and above all potential threats.

1.1. What is corporate governance industry reform 4.0?

In the first half of the nineteenth century we had the first industrial revolution, with steam engines. At the end of the nineteenth century and the beginning of the twentieth century we have the second industrial revolution with the discovery of electricity, current generators and the birth of chemistry. The first training schools were born on the German model, compulsory schooling was introduced in Italy up until elementary school, the polytechnics of Milan and Turin were born, where research on the latest technological developments will be carried out, now workers...
will have to be better educated, know how to read understand instructions and machine controls. In the seventies the third industrial revolution was born with the entry of computers and the entry of automation, these two technologies began to replace the elaborations and calculations made by men, also affecting the world of work of the so-called white-collar workers and to reduce coveralls blue at certain stages of assembly line production. The fourth industrial revolution is the digital revolution, all the devices will have sensors and will be connected to each other, i.e. they will talk to each other and will be able to make decisions independently (Internet Of Things), and all these data will be processed with the help of Data Analysis in the case of a large amount of data, Big Data, the significant ones will be selected and the operation of the same devices will be regulated by processes (algorithms) without human intervention. In the field of manufacturing, there will be Adding material, thanks to 3D printers, in making an object there will be a saving in raw materials, a reduction in costs, the creation process will change radically, instead of eliminating material from a block, after a holding through: boring, turning, etc., the material is added with layers, it is easy to create even lighter and empty forms. Furthermore, the logistics will also have a change because, through 3D printers, the design team can be in one country, if not in another continent, while the printer will be, in another country, directly next to the customer. The name Industry 4.0 takes its inspiration from a project done by the German government, during the Hanover fair in 2011 in which they anticipated the Zukunftsprojekt Industrie 4.0. Realized at the end of 2013, a project for the industry of the future that included investments in infrastructures, schools, energy systems, companies and research institutions to modernize the German productive fabric and relaunch German manufacturing, making it competitive at world level.

1.2. Digital revolution

In the fourth industrial revolution due to the digital revolution many aspects will change, first of all it will completely change the process of realization of the objects, so far we have had the processing through the removal of the material from the product, that is from a block of matter, part of it is eliminated to obtain the shape desired, but now with the adding of material through 3D printers the material is added, even objects with empty shapes will be obtained quickly without having to make use of the printing works and assembly; you will save on raw materials, in production times, there will be a decrease in the objects production areas: many machines, printing works, lathes, milling machines etc. they will no longer be needed, the assembly lines will disappear, there will only be 3D printers, the skilled workers of some work phases will disappear, because the machines and printers will do their job, other professional figures will be born, like the designer of 3D, the technician who will follow the machine (performer) will not need a high level of education, his tasks will be limited to changing a few
parameters via a tablet or display, with the help of a software that will help him in the configuration. Industry 4.0 can be an opportunity, products can be created directly on site, where they are required, while the project can be processed thousands of miles away, transport costs and delivery times will be reduced for the Italian industry could be an opportunity, creating elements of customization on customer requests, maintaining those quality factors of Made in Italy, as we are good at design, creativity and product customization, industry 4.0 could make it disappear mass production as we know it, but make the production more personalized to the tastes of the customer, who can choose, for example directly from an application via the web, thousands of miles away, to customize colours, some parts of the design and their combinations, because it is only the set of all these technologies that can allow a rapid customization and variation of the product produced in much faster times than the old series production, designers and specialists).

1.3. Information disclosure and transparency

Transparency, and timely and accurate information disclosure is a key corporate governance principle for the Company.

1.3.1. Disclosure policies and practices

The Company discloses and provides easy access to all material information, including the financial situation, performance, ownership, and the governance structure of the Company to shareholders free of charge. The Supervisory Board prepares and approves a by-law on information disclosure and makes it publicly available on the Company’s internet site. The Company publishes a comprehensive annual report that includes a corporate governance section, and prepares other reports, such as the prospectus, quarterly reports, and material facts reports. The Company discloses its corporate governance practices, corporate events calendar, and other material information on its website in a timely manner.

The Company takes measures to protect confidential information as defined in its by-law on information disclosure. Any information obtained by the Company’s employees and the members of the governing bodies may not be used for their personal benefit.

2. LITERATURE REVIEW

There are several varieties of corporate governance models in the world. The various models are distinguished according to the degree of capitalism in which the company operates. The liberal model typical of the Anglo-American states gives priority to the interests of the shareholders. The coordinated model of continental Europe and Japan also recognizes the interests of workers, managers, suppliers, customers and companies. Both models enjoy different competitive advantages, but in different ways. The liberal model encourages total innovation and cost
competition, while the coordinated model promotes qualitative innovation and quality competition.

In the United States, a company is governed by a Board of Directors, which has the power to choose a CEO (CEO). The CEO has ample powers to run the business on a daily basis, but needs Council approval for certain important manoeuvres, such as hiring subordinates, raising finance, acquiring other companies, making capital expansions, or other relevant projects. Other Council duties may include setting corporate policies, decision making, monitoring management performance, or more general control of the company.

The board of directors is appointed by the shareholders, to whom they are responsible, but the internal regulations of many companies make it difficult, even for the major shareholders, to exert a certain influence on the composition of the Board; usually, individual shareholders do not have the possibility to choose Board members from a list, but can only approve appointments. In many companies, it happened that incentives were given to the Council, so that the members were under the control of the administrator, who had to control the actions instead. Often, then, members of a Board of Directors are directors of other companies, which some experts see as a conflict of interest.

The corporate governance of a company can be modelled on three schemes:

Public share company: the company's share capital is divided into a large number of shares, which are listed on regulated markets. The capital then ends up in the hands of an innumerable group of shareholders that make up the company itself. The ordinary assembly is therefore essentially limited to performing the formal functions assigned to it by the various legislations; while substantial decisions are made by a staff of professional managers.

Consortium company: the decisions made by the management are orchestrated among the various stakeholders of the company. This model has had particular application in Germany and Japan.

Owner's business: there is only one individual, the entrepreneur, who makes important decisions for company life. The capital is divided in such a way that it is impossible to make a climb to the top of the corporate bodies. This model has had particular application in Italy.

3. RESEARCH METHODOLOGY - LEARNING MACHINE

Intelligent machines, or even those called artificial intelligence, are processors that develop a cognitive and memory capacity, therefore to decide on the basis of the stored information, which they have acquired and therefore able to make a decision independently and not only to execute instructions like common processors. They will have a great development in the field of finance, when they will be able to analyze and elaborate a myriad of information and to buy or sell, in complete autonomy, stocks, bonds, and any other type of security. Another example is the insurance field, processing a myriad of information about
a contractor will be able to assess its risk and process the receipt with a speed not comparable to that of current insurance experts.

The Learning Machines will also be helpful in the Recruiting sector; they will be able to quickly select the professional figures they are looking for.

It can be said that the first case of intelligent machine was when a computer succeeded in defeating a world chess champion for the first time. As we report in the following article:

In the late 90s, a decisive moment occurred in the world of artificial intelligence. In 1996, chess master Garry Kasparov played IBM's Deep Blue, originally built to play chess using a parallel computer system, and won 4-2. A year later, Kasparov and Deep Blue played another game, this time, Deep Blue won. This victory has created a radical change in the attitude towards the idea of artificial intelligence. Chess minds have to perform very complex calculations, evaluating on the fly more moves and strategies. They can also learn by themselves and apply new moves. Being able to imitate this process, even when applied to a specific task like chess, opens up real potential for technology.

In-depth learning is used in more complex activities, where the rules are more confusing and complex. The era of big data is providing the tools that are driving use cases for in-depth learning. We can see in-depth learning applications in everything related to the recognition of models, such as facial recognition systems, voice assistance and behavioural analysis for fraud prevention.

Artificial Intelligence is entering a new era with the help of more sophisticated and improved algorithms. Artificial intelligence is the next disruptive technology: many of Gartner's forecasts for technology in 2016 and beyond were based on artificial intelligence and machine learning.

Artificial Intelligence holds the keys to those unsolvable questions, those that we thought could only be done by human beings. Ultimately, even writing this article could one day be done by a machine.

Watson (IBM) brought us another milestone in 2011, winning the Jeopardy quiz show on two champions. Watson brought not only the speed of data search and the computing power on the table, but also the "ability" to interpret/reason the questions in a common language.

4. RESULTS

4.1. Big Data

Big data can be described using the three Vs, namely: volume, speed and variety. They will manage a huge amount of data, therefore to extract only the significant data they will have to equip themselves with very fast reading and storage technologies, to finish the variety, not all this amount of information is useful, most of it is to be discarded, so through statistical and semantic algorithms we will be able to select only the Data that really possess significant information for our research.
To illustrate an example of the potential of using Big data I report the following article. The speed with which semantic analysis operates also means that companies can more easily detect weak signals. These signals represent new concepts, strategies or guides that are slowly but surely emerging in our professional language. The data will be returned to the employee even more quickly because the tool does not require any preliminary information to analyze it. These signals are extremely useful for businesses and represent real added value.

In addition to working on texts and voices, semantic analysis solutions can also interpret feelings. This ability is used to prioritize information or to isolate an unhappy customer, for example, in order to accelerate and improve the customer and employee experience. Thanks to smart bracelets, we will soon see the arrival of facial analysis, a tool that will capture emotional insights in real time, allowing us to live increasingly more personalized experiences.

5. DISCUSSION

So we must take into account a new right, to be protected, that of the right to disconnect, because the Smart Working could lead, with the use of business tools such as: laptops, tablets and mobile phones, to an intrusive and illicit remote control from part of the companies of its employees even outside of working hours.

In my company the main strategy are "branded" (word deriving from the English Brand, when the PCs are installed with programs and configurations already predefined) that is, the user does not have control of the machine, as it does not have an administrator user access, which gives the right to install, remove or block some processes running on your machine, but we have verified that there are software installed that can carry out a remote control without the consent of the person, to whom the device has been entrusted (device) on loan for use, with this software in addition to seeing the documents on the PC, companies can control navigation, the time of switching on and off, activate and record audio and video from laptops.

On the phones provided by the company, the Cerberus application is installed which allows you to remotely use a mobile phone, given on loan to an employee, as if it were in their hands, even in aerial mode it manages to have controls and receive information like the position, only when the phone is switched off, the software cannot detect data.

Thus the need arises to clearly define the right of disconnection by workers after having paid their time, established by national contract or by company contract.

With the subsequent decrees compared to the first introduced on the Smart Working, there have been corrections on the protections, therefore currently also for the Smart Working, with the exception of some protections that were foreseen by the previous legislation on Telework, such as insurance protection on some types of accidents, which in the case of Smart Working are examined only on a case-by-case basis, the
meal voucher was reintroduced for a working day longer than four hours, equating the work performed with the Smart Working to that carried out on the company premises or with the past legislation on the Telecommuting.

Another problem could be the fragmentation of the work, the isolation of the worker, the new jobs like those proposed by the Gig Economy, have become a pretext to take a step back to the rights acquired by the workers, there are no holidays, no diseases, no insurance in the event of accidents, with the platform you compete and compete with other workers, you are coming back, you are returning to piece work, see the case of raiders, I pay you based on how many pizzas and sandwiches you have delivered, also favouring a lowering of labour costs, and a reduction in labour rights.

6. CONCLUSION

The question of the potentially negative impact of technical progress on employment levels is not foreign to modern economic thought and, as clearly illustrated by the opening quotations, has been the subject of reflections by great economists in very different eras. However, as is known, since the dawn of the industrial era, productivity gains associated with technological progress have been accompanied by sustained growth rather than employment decline, and this is the reason why the fear of technological unemployment is often indicated by the nickname "Luddite fallacy". In spite of this, in recent years the topic has assumed greater importance not only because of the astonishing advancement of the information technologies mentioned above, but also because of the decreasing trend that can be observed in the growth of employment in some important advanced economies, in especially in the United States in recent decades.

At the theoretical level, two different approaches have historically been compared to the question: the first in support of the hypothesis that technology is able to lead to a structural reduction of employment through a prevalence of the substitution theory, the second in support of the hypothesis that market mechanisms are able to compensate for the substitution effect neutralizing the negative impact of technology on employment levels (compensation theory). The hypothesis of prevalence of the substitution effect rests on the idea that the widespread innovation of production processes due to investments in ICT, increasing labour productivity, reduces ceteris paribus the demand for labour compared to capital demand, thus leading to an overall decrease in employment levels.

It should however be borne in mind that David Ricardo, although he is often counted among the "pessimists" on the subject, actually acknowledged the existence of compensatory market mechanisms, and the quoted passage referred to the case in which the increase in profits (due to the labour saving effects of the use of machinery) had not
translated into an increase in investments or an increase in production levels Vivarelli (2014).

It is said that Ned Ludd was the charismatic leader of the Luddite movement, a group of British workers who during the first industrial revolution would have reacted to the fear of technological unemployment by destroying the first prototypes of mechanical loom purchased by the textile companies in which they worked Hosbawn (1968).

Is quite popular in the mid-nineties with the popularizing work by Jeremy Rifkin (1995), a moment from which the spread of ICT seems to have begun to favour US productivity growth. The apocalyptic scenario outlined by Rifkin's hypothesis, known as "the end of work", found a first authoritative critique about a decade later by Levy and Murnane (2004). In particular, the authors have argued that although machines are able to carry out tasks with relative ease based on fixed rules (automation in the strict sense), they are not suitable for performing functions that require complex interactions or cognitive processes (artificial intelligence), an objective fact that makes the hypothesis of long-term prevalence of the substitution effect implausible. However, as illustrated through numerous examples by Brinjolfsson and McAfee (2011, 2014), after a further decade the machines are developing capabilities that go beyond mere automation, making the point of view suggested by Levy and Murnane partly less reliable.

Otherwise, the second theoretical approach has its roots in those market mechanisms that can neutralize or even reverse the substitution effect caused by labor saving bias associated with investments in new technologies. The main channels through which the compensation effect operates are substantially three: product innovation, price reduction and income increases. In the case of product innovation, the compensation mechanism should act thanks to the demand of innovative products, which is assumed to be superior to that of old products and, therefore, able to compensate for the reduction in the quantity of work demanded through an increase in production levels.

REFERENCES


