

HUMAN PROSPECTS IN THE ERA OF ARTIFICIAL INTELLIGENCE: REFLECTIONS ABOUT WORK

TWO SIDES OF THE SAME COIN

Industry 4.0, smart factory, the fourth industrial revolution. These are all different names for the same phenomenon that has been changing people's lives and the everyday routine of business all over the world – namely Artificial Intelligence.

Some people perceive it with contentment while others with distrust. Will robots steal our jobs leaving us in poverty and obsolescence? Or will they create new opportunities and set us free from the burden of carrying on repetitive jobs? If so, how is it going to happen? How can we secure human importance in this context full of flawless machines ready to do our jobs without claiming for better wages or extra vacations?

Many questions are certainly being asked and will continue to be raised. The conflicts of interest between employers and employees, as well as the men vs. machines thematic have been quite recurrent topics in the history of human work. The past industrial revolutions, for example, raised the same fears and uncertainties among people. So it is worthy to take a quick look at what happened during these last disruption moments in order to see what can be learned for the future.

A HISTORICAL GLANCE

Since the first industrial revolution, technology has been increasingly deployed in many sectors of the economy. But it has not led to unemployment. On the contrary, the number of jobs has actually risen¹.

Economists attribute it to the diverse effect produced by automation. According to this, technology causes some jobs to disappear (the substitution effect of

¹ DELOITTE. What key competencies are needed in the digital age? The impact of automation on employees, companies and education.

<https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/innovation/ch-en-innovation-automation-competencies.pdf>

automation) but, on the other hand, it creates new jobs in new areas that did not exist before (the complementary effect of automation).

Some experts, however, are reluctant to accept that old trends will endure in the future. They claim this new industrial revolution has no precedent in history and its effects will be felt in a much bigger scale.

Who is right? It is impossible to know for now. Whether people have a more optimistic or pessimistic view, I believe the key to go through this change is to focus on what makes us humans and, therefore, different from machines. What makes us so different and unique that is not likely to be reproduced by a robot.

Machines can be intelligent, but only humans can be wise. And we must be wise in order to secure our supremacy before machines, which does not lie in the ability of performing a task with perfection, but rather in the ability of conducting this process in a way that makes humans the main beneficiaries of it.

THE DOORMAN'S CASE

Many people are already feeling the impacts of this new trend (for better or for worse) and when I think about them, I inevitably remember the doorman's case.

Some weeks ago I went to visit a friend of mine at her home. While waiting for her to answer the intercom I began to talk to the doorman that kindly allowed me to enter the building and wait inside until my friend answered the call.

I asked how he was doing and he said he was very upset because he was given notice. When I asked why, he said the building administration was implementing a complete automated control system to reduce costs. He told me he is already old and do not have too much formal education and that he cannot retire any soon because most of the jobs he had when he was younger were "off the books".

What is he supposed to do now, I wondered? He has worked his entire life and now, when he needs the most, he is simply no longer required. I tried my best to say some kind and comforting words to him, but it was not an easy task.

I approached the theme with my friend later, and she said a lot of people in the building agreed it was a pity, but for most of them it was just the way things work out for those without qualification (as if all the unskilled workers in the world have

deliberately chosen to be in such situation – but this is a topic for another discussion). They did not try, not even for a moment, to walk in the doorman's shoes (probably because they thought it would not fit them at all).

People have a tendency to think these sorts of things will not affect them because they have very important jobs to which they studied years to qualify. However, it is not exactly how it is.

Less skilled workers are much more likely to be affected first. But white collar and high skilled workers are not exempt from the effects of this revolution that advances in a fast pace. Computer programs like Watson² or clever research bots are already changing the future prospects for all kinds of workers, from doormen to medical doctors.

We must understand this is something that, in a smaller or bigger scale, will affect us all. It is not a concern of a group of people who did not do their homework and ended up to be unskilled. It should be everybody's concern.

Companies must have social responsibility and work along with governments and other organizations to create policies that help people through the transition towards this new era, rather than just cast them aside to cut costs to the bone. It is not possible to assume the invisible hand of the market will handle it and the market will adjust on its own.

I am not advocating for the limited use of technology in order to secure our jobs. Technological advancements are inevitable. We must embrace them, and seize the benefits that artificial intelligence can offer. They are very vast and can be amazing in so many ways.

But we must also do our very best to limit its negative impacts which are, by the way, too many and in a lot of different areas other than employment. Concerns related to privacy policies and human rights (use of technology for war and conflict purposes) are just some of the examples.

When it comes to employment, we must also remember that work is not only about having an income source. Economy is, of course, a very important aspect of people's lives. But work is much more than that. It is about dignity and self esteem. It

² IBM <https://www.ibm.com/watson/>

is about to feel useful and important. And this is not something a machine can provide us.

In this context, Peter Drucker's human centered approach becomes incredibly relevant. Many aspects of his theories are applicable to this new era and should be better explored by all organizations.

People must be the final beneficiaries of all the prosperity that artificial intelligence has the potential to create, so machines can serve us and not the other way round.

ROBOTS DO NOT EAT CHOCOLATE

It is also worthy to remember another one of Peter Ducker's lessons which is "*the purpose of a business is to create a customer*"³. Machines do not have dreams, needs or desires. They do not have identity or preferences. Only humans have that. This is what makes us unique. And this is also what makes us consumers of certain types of products and services in detriment of others.

Different people have different needs and tastes. Without people who can afford the products that will be very efficiently manufactured by machines, there will be no point in having a smart factory that runs on its own, because "*robots don't eat chocolate*"⁴.

Considering that pretty much of our current work activities have the potential to be easily performed by robots, humans will need to be put into some kind of work if the owners of the new smart factories still want to make money by selling their products. But how can it happen in a scenario where robots will probably perform a considerable part of our previous tasks?

I believe the answer is to focus on what makes us different from robots. Creativity, adaptability, social interaction skills, intuition, flexibility, empathy, passion and courage are just some of the features that are innate to humans, and not to

³ DRUCKER, Peter. *The Effective Executive* HarperCollins Publishers, 2006

⁴ MEEK, James. Somerdale to Skarbimierz. London Review of Books, April 2017.
<https://www.lrb.co.uk/v39/n08/james-meek/somerdale-to-skarbimierz>

machines. They should, therefore, be better explored in a world where machines will be more likely to perform activities that are placed in the other end of this scale.

In this context, the concept of knowledge worker created by Peter Drucker in 1959 becomes extremely up-to-date. The knowledge worker is the one that can be creative. It is the one that creates something new and valuable out of previous knowledge and experiences.

Only humans can do that. Although machines can learn from a very big amount of data and complex algorithms, they do not have creativity. They are often designed to accomplish very specific tasks to be performed in a tailored environment. A system created to drive a car cannot, for example, manufacture a car or think about it in a critical and creative way.

THE FUTURE OF BUSINESS

This new era is going to change the way we work, there is no doubt about it. But how is it going to change the way business organizations will have to handle their human workers in order to get the best of them? To get what only humans, and not machines, can provide?

Managers will need to know how to make the most of their employee's potential in this new era, because most of them will no longer be required to perform tasks that can be easily assessed as right or wrong.

Employees need to be trusted, empowered. They need to be heard and be taken into account. And most importantly: they need space to be creative. They must dare to try and fail. Fail is also a part of being human. It gives us the chance to learn from our mistakes and to do better in the next time. Failure must not be seen as a shame. It is one step further towards achievement.

Based on this new approach, jobs descriptions should become much less like "what you have to do" and much more like how you address different issues and how you can contribute to solve complex problems – specially the most complex problems of our time such as climate changes, renewable energy, poverty, food safety, healthy, etc.

In this context technology becomes a great ally because it provides the necessary means to maximize the effects of the solutions created by humans in favor of others humans. There are amazing initiatives in this field that should become more popular, such as the IBM program “call for code” that aims to stimulate the creation of global solutions for disaster preparedness⁵. Technology shall be employed to make people’s lives better and to help solving the most complicated problems of our time.

LEARN HOW TO LEARN

Learning is also a very important aspect of this new scenario. People need to be in a permanent process of self development and learning in order to follow up with this new trend. According to a report from Deloitte, writing, speaking, reading comprehension and critical thinking are the basis for acquiring further knowledge and skills⁶. Therefore they shall be key competences for all employees in this new era, as they give them the ability to “learn how to learn”.

Technology can also be of great help in this matter because it can act as a facilitator for human learning. It can secure continue access to education for those who already have it and help to socialize the access for those who could not afford it before, contributing to integrate them in this new era.

HUMAN PROSPECTS IN THE ERA OF ARTIFICIAL INTELLIGENCE

So moving to the final question of this reflection: what are the human prospects in the era of artificial intelligence? I believe the prospects for us, humans, are great as long as we manage to set the tone of these changes and use them to spread the wealthy rather than the exclusion. The key is to stay human. This is our greatest advantage over the machines. People must take care of people. Let machines do what is left.

⁵ IBM Call for code. <https://developer.ibm.com/callforcode/>

⁶ DELOITTE. What key competencies are needed in the digital age? The impact of automation on employees, companies and education.

<https://www2.deloitte.com/content/dam/Deloitte/ch/Documents/innovation/ch-en-innovation-automation-competencies.pdf>