



Yoko Ishikura is an internationally known personality, having participated in TEDxTokyo in 2014© All Rights Reserved

What kind of skills can not be replicated by robots?

“Social skills are those that are necessary in the future”

Robotics and Artificial Intelligence (AI) are bringing a tectonic shift in the labor and social organizations. For now, we feel the first waves of a wave of changes that will happen rampant in the coming years, according to much of the forecast.

It is the light of the day after dawn of the fourth industrial revolution - or Industry 4.0 -, the revolution in the flavor of technological innovations, based on concepts such as Internet of Things, cyber-physical systems, augmented reality, *cloud* storage , Artificial Intelligence, etc. A sea of concepts where the premise is the dilution of the boundary between man and machine through the internet and conventional networks, in an intelligent symbiotic system based on data sharing.

These changes will configure a new type of society, full of challenges. Whats the way? Fight for stability or embrace change?

Yoko Ishikura , an *emeritus* professor of international business strategy at Hitotsubashi University in Tokyo, Japan, is in Porto this Friday to be a speaker at **the GPA Conference 'Citizenship and the Future of Sustainability'** , on the Citizen of the Future theme, and spoke to the News on the Future about technologies and AI.

Technology is in the process of transforming the way we live and how we work and legislation is not keeping up. **Stephen Hawking addressed the last Web Summit and made a grim forecast about the future of Artificial Intelligence (AI). Roughly speaking, Hawking said that in 20 years, computers will be able to mimic the human brain and then will be able to decide whether or not to destroy humanity. Sharing these concerns?**

[Laughs] Not necessarily. I'm not an engineer, let me just make it clear that I'm not an AI expert. I can not discuss the future of AI *per se* . AI has improved, made tremendous progress in the last year or two. We are talking about many things that AI can do now that it has not done before but I think there is room for human intelligence and human creativity.

Technology and AI are evolving at different speeds in different countries. What do you think the role of governments should be in terms of legislation?

Technology is in the process of transforming the way we live and how we work and the legislations are not keeping up, let's put things that way. For example, in the case of digital platform workers, how will you manage it? I think the work of the future will be very different from the way you work today. Legislation and most social systems are well-founded on the

assumption that the traditional way of working will continue, when it does not.

In my opinion, there will be many more freelance or independent workers in the future, probably working on digital platforms and I think the legislation has not yet been updated. I do not even think there is a solution or a right answer to the problem because we do not know yet.

Creativity and imagination, these are skills that will fill the gap. [In the future]

There are many studies that talk about frightening rates of man overriding the machine in the workplace. How will technologies change the economy and how can workers adapt to this new reality?

Industries, society, the way we work or how we live are being transformed, and the way forward is to ensure that people continue to learn new skills. As for the replacement of humans by robots, so many jobs *per se* will not be lost in the overall calculation. However, many activities in these jobs will be attributed to robots and artificial intelligence.

For example, doctors. Computers can accumulate extraordinary amounts of data related to different diseases and their different treatments. Human physicians, on the other hand, are limited in what they know and in the amount of information they can keep up with the rest of the world. That is, this part of the work can be done more effectively by a machine. However, physicians have to explain the diagnoses, the treatment, how the patient is feeling through the interaction.

What kind of skills can not be replicated by robots?

Solving complex problems, beginning with the ability to identify problems because this requires some capacity for evaluation. However, social skills are those that are going to be needed in the future because we will need to work with different people, specializing in different fields, and at the same time we will need to learn how to cooperate with robots and AI so that we can get the best results.

Definitely technical skills are needed, but these can be learned through online teaching and other such teaching. Creativity and imagination, these are the skills that will fill the gap.

New business models, such as Uber or Airbnb, tend to clash with traditional legislations and traditional interest groups.

Do you think that the generations that follow need a new kind of school and curriculum?

The current or traditional curriculum is taught by the school pathway or by way of job training. We need new skills, those that will be needed. As for how they will be taught, that is the big question now, because I believe we are still in the experimentation phase. How do you develop creativity and imagination in people, for example? How do you develop social skills? I think you can learn more through experience than through manuals.

Uber is an example of a new service-based business model. Some countries, however, are against their new rules in terms of competition. Is this a sign of a coming change in the structure of business and legislation?

I think technology has brought us (and will increasingly enable) the construction, development and implementation of new business models, such as Uber or the Airbnb platform. This tends to conflict with traditional legislation and with traditional interest groups. It remains for us to know how

to resolve these conflicts, because we are in unknown territory. We do not know how to regulate, nobody knows. We have to make sure that there is a safety net, that there is equality. But it remains to be seen, I do not think anyone has a clear answer for that matter.

There are many advantages to using technology. At the same time, we must ensure that we live now and here. **At what speed do we believe we will reach a new type of society, society after the fourth industrial revolution?**

It will be much faster than we ever expect. It will be exponential rather than linear. And exponential progress or exponential speed is very difficult to understand because we tend to think in a linear fashion. However, it is what is happening. Some people say that the progress that will happen in the next 20 years will outweigh the progress we have seen in the last 300 years.

How will technology and AI change the way we live and interact?

Technology makes many things possible, before there was no possibility to communicate or see what was happening in different places. I think it makes distances, as well as time, much less important. There are many advantages to using technology. At the same time, we have to make sure we live now and here. We have to make sure we are aware of that.