

Artificial Intelligence from an Asymmetric Development Perspective

Opinion article

Juan G. Corvalán

Co-Director of the Innovation and AI Laboratory, School of Law, University of Buenos Aires, Argentina

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The Artificial Intelligence (AI) era entails a profound paradigm shift that causes unprecedented challenges. How to enhance, and at the same time, protect ourselves from intelligent algorithms that replace and outperform us in multiple cognitive jobs? How can AI contribute towards sustainable and inclusive development? How will human rights be transformed, in the asymmetric transition, (technological advances and dissimilar economic, social and cultural realities) that seems to move towards the symbiosis between the biological, digital and artificial?

All these issues can be redirected from two main axes that will be explored in the First Artificial Intelligence Latin American Summit at Massachusetts Institute of Technology (MIT) in 2020. The first, is linked to what we could call “the luminous side of AI.” From a macro perspective, AI has the unique potential to manage and reduce the three great characteristics of our societies: complexity, uncertainty and unpredictability. On specific issues, AI manages to optimize and simplify activities, while at the same time ensures the effectiveness of rights. For example, AI assist people with visual disabilities, speed up judicial processes, improve access to health policies, among many others [1]. If the proper conditions are built, AI is an exceptional opportunity to improve organizations and contribute to the achievement of the Sustainable Development Goals.

The second axis deals with what we call “the dark side of AI.” From this perspective, first it is important to emphasize the risks that are created from the so-called existential risk, linked to the possibility that human beings may lose control over artificial intelligence systems. Second, from a short and medium term perspective, the guiding principle is related to reducing or eliminating risks and damages that may be caused by these systems. Biases, discrimination [2], mass surveillance that is contrary to human rights, treatment of digital profiles contrary to laws, violation of workers' rights, among other matters.

However, the luminous and dark sides of AI are indissolubly associated to asymmetric development, which is commonly inherent within the least developed countries. This means that it is very difficult to develop an inclusive and sustainable ecosystem of automation and massive application of AI when companies work with process and technologies of 70 years ago. In other words, elaborating and implementing a strategic plan for this set of disruptive technologies is a substantially different task to be executed within the countries of the region than as it is in Estonia, Germany or the United States of America. Structural poverty, accessibility problems to essential services such as water, gas and electricity coexist with extremely embryonic



ecosystems of digitalization, connectivity and interoperability. As if all of this was not enough, the relationship between the State and the citizenship is often defined by complex regulation that almost doubles the Organization for Economic Co-operation and Development (OECD) average, meanwhile wasting the potential benefits of the digital world [3].

The asymmetries found in the development of AI make it necessary to rethink strategies and tactics, since the biggest challenge is related to addressing three major gaps simultaneously. The first gap is related to the access to innovations and services of the late nineteenth and early twentieth centuries. The second is linked to the advantages of the internet, the quality of connectivity and the simplification and expansion of the digital services offers. The last gap is starting to form and refers to AI access. Those who can take advantage of its benefits and face the challenges more efficiently may further detach themselves from other cities and countries, in terms of productivity and income, which would further exacerbate the already existing development inequalities.

In short, asymmetric development increases the complexity and demands for greater efforts to make people's rights more effective and the achievement of the Sustainable Development Goals. From our perspective, in Latin America as a whole and particularly in Argentina, the challenge is to be able to innovate from an adaptive perspective of technological progress, which takes into consideration the multiple differences between people, districts and vulnerable sectors. For instance, within the scope of the Innovation and AI Laboratory of the University of Buenos Aires, we commonly implement a kind of automation diagnosis, which is based on analyzing the cultural, social and economic context, the digital ecosystem and the level of task complexity [4].

Based on the new paradigm of augmented intelligence (human intelligence and AI), automation strategies should incorporate an exhaustive analysis of the appropriate AI techniques to be applied at each specific place, so as to assist the development, transparency, and explainability, under a progressive adaptation of human and machine integration, following the concept of inclusive cobotization. Furthermore, making an intelligent diagnosis about the deep-rooted asymmetries in terms of infrastructure, institutional quality and sustainability of the projects become essential.

Adopting strategies or formulas from other countries with such diverse realities, cultures, economies and digital ecosystems, could generate an opposite effect to that with is desired. This being that resistances which are paradoxically contrary to a sustainable and inclusive development approach by making people an accessory to the equation, might appear. Although it is very useful to create networks, reason strategies and access the knowledge that is generated in other latitudes, it is crucial that innovation is developed following a "tailored-made" approach.

References

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