

Jose Eduardo Cassiolato

Professor, Federal University of Brazil, RedeSist Coordinator & Former Secretary General,
GLOBELICS

There have been a lot of attempts to develop the strategy to deal with the problems and perspectives of the world economy. In this context knowledge economy has been discussed and implemented in several countries. In my country, during the bright years of the President Lula and from 2004 and 2015 several national and state level initiatives have been developed precisely with the same type of objectives. There is some important progress, particularly relating to the two key points of discussion here: 1) in terms of skills; 2) in terms of infrastructure. We have improved a lot in several parts of Brazil in these two areas. But in terms of innovation systems, there was a mismatch.

The second point is a general point, of course, has to do with some points already mentioned by some of the speakers that preceded me. I would point out particularly Professor Ghosh's remarks about the importance of looking into the capabilities, the productive and social capabilities at local level. In all my trips to Kerala, I have benefited a lot from your care systems, particularly Ayurvedic medicine. I think that the issue of linking the local specificities to the program of transformation to the knowledge society should be seen in a very detailed way. I think that a focus in local innovation systems is an important part in my point of view, that could constitute one of the key stones of the program.

I think there are a couple of consensuses that are already emerging. The first one could be an outcome of pandemic, which is the development and use of the disruptive technology or the so called Fourth Industrial revolution having its impact on work and how we relate each other.

Secondly, although the globalization is here to stay, perhaps in a different way, the issues of sustainability, food, and health security are becoming important and much changes are happening at the local level.

Christopher Freeman pointed out in the early 90s that in an economy driven by short term market forces changes the technological trajectory incrementally given the existence of various lock-in mechanisms inhibiting radical paradigm shifts. That is the point that I think it's important to take into account because we keep trying to follow the same technological trajectory in industry 4.0 that is happening in most countries of the world.

In most countries we are witnessing the use of this new artificial intelligence and all the technologies of the industry 4.0, try to make the old paradigm believe for some more time. This is a huge problem. Based on our recent research in the area of health, we certainly know what is happening. We have several examples that could be shared with you regarding how the use artificial intelligence is being done in the most part of the country. A recent research paper carried out to know about the main use of artificial intelligence in the area of health. These users are, of course, the major US health organization, especially big private hospitals, which are mostly controlled by investment funds by Wall Street in which they follow the logic of short-term profit maximization for shareholders. The study is fantastic because it shows that in all 99 per cent of use of Artificial intelligence in US hospitals, they are precisely trying to increase the economic efficiency of ongoing activities to make process more efficient, improving existing product and service and reduce costs nothing radical on that. I remember recent paper by Daron Acemoglu from MIT, where he pointed out that in this area of health, artificial intelligence could be used in so many novel ways. Not trying to substitute machine for labour and increase short run cost efficiency, but creating new products and empowering nurses, technical people in hospital, even MDs to use this technology in other ways.