

## DEBATE

### **Randi Kotti, Graduate student at the Kennedy School, incoming French public servant**

During the Covid pandemic, we have seen how technology has become a key and strategic capability. The question is who should develop those technologies and own them? Should it be the private sector, maybe for reasons of efficiency and the fact that there would be more independence? Or should it be more on the state side for ethical reasons? Maybe in some places people would trust their states more and in others they would prefer Apple, Facebook, etc.

### **Jacques Biot, Board member and Advisor to companies in the field of digital transformation and artificial intelligence, former President of the École Polytechnique in Paris**

Thank you for a great question. I may have given a pretty pessimistic view of the lack of coordination in the healthcare system, but the good news is that there is a big reservoir of productivity due to augmented intelligence. That should make it possible to get rid of many of the inefficiencies in the system. The question of who owns underlying data and technologies is a big question, we lack time to discuss this today but I would encourage Thierry and IFRI to pursue their highly valuable intellectual investment regarding healthcare issues.

For example, I currently follow a project that leads to the rollout of artificial intelligence in the field of medical pathology and the question is: who is the owner? Is it the engineers, the physicians, the people who provided the data that made it possible, etc.? It is a big question and, in the end, I think the profit has to be shared between the various players. Once again, the good news is that there is a reservoir of productivity so we should all work together first to see how we can use this reservoir and share it in an intelligent and equitable way. I defer this question to another meeting, if you are interested in pursuing this theme, Thierry.

### **Michel Kazatchkine, former Executive Director of the Global Fund to fight AIDS, tuberculosis and malaria, Senior Fellow at the Global Health Centre of the Graduate Institute for International and Development Studies**

I have a question for Dr. Kim and Carlos Moreira. Beyond technological progress and the issue of consent, I think what you have been talking about is a major revolution for me. That is that these technologies will lead to self-responsible management of health by the people. Until now, somehow the patient, and the word patient speaks for itself, was a passive object versus the healthcare system. Now the patient will become the responsible actor and of course, that has a lot of implications in terms of their source of information and whether we should leave decisions to the patient. I wonder if you can comment on that.

**Kim Sung-Woo, Chief Executive Officer of MiCo BioMed Co. Ltd.**

Actually, we can use a rapid immune-diagnostic test kit for self-testing. These kits can be purchased at drug stores or super markets. In the USA, FDA allowed individuals to purchase a rapid diagnostic test (RDT) kit to detect Covid-19 antigen at drug stores such as CVS and perform the test by himself to check whether he is infected from Covid-19 or not. He can follow the test protocol easily and interpret its result by himself. Appearance of a single band is negative and appearance of double bands are positive. For more accurate interpretation through professional standards, smart phone app is currently linked to take a picture and get feedback from control tower. This indicates that we are now entering into the tele-diagnostic era.

**Carlos Moreira, Founder, Chairman and Chief Executive Officer of WISeKey, former UN Expert on cybersecurity**

Just to complete the answer, I think it needs regulation. The fact of moving from passive, which is what we should be, to an automatic default login into somebody assessing our health can only be resolved by legislation. There are HIPAA regulations in the United States and others in Europe, but they are actually very vague about who owns the data. The data should be owned by us, the patients, not the system. If we own the data and it is under our consent then we are protected as we are everywhere else, in the financial system for example, where the bank is not authorized to do anything without our consent. That level of consent needs to be applied to the health industry. That is not the case now and the data belongs to the health institution, and this is wrong, the data should belong to us, and we can then give our consent for them to use it. If the data belongs to them by default, then we will be letting artificial intelligence and other technologies to data mine that data by default.

**Patrick Nicolet, Founder and Managing Partner of Line Break Capital Ltd., former Capgemini's Group Chief Technology Officer**

We have reached the end of the session. Thank you very much to my colleagues for their insightful presentations and your questions.