Eric Bothorel – Deputy, Assemblée Nationale, France



How can the use of data science revolutionize healthcare? How about education? These are two examples of the multifaceted and distinct problems we are tasked with solving.

22.10.2018

Tags: France, Innovation, Regulation, Blockhain, Big Data, AI

Eric Bothorel, Deputy at the French Assemblée Nationale and responsible for the parliamentary group on data, knowledge & AI, provides an exclusive interview on France's digitalization process. Bothorel describes France's progress in frontier technologies like AI and Big Data and explains their expanding role in the healthcare sector.

Can you introduce yourself to our international readership and explain your current role entails?

I worked mostly in the private sector prior to my current position in the Assemblée Nationale. I started working for a small French company called Infopoint that was later acquired by Econocom. After my time there, I worked for GE (General Electric) in their GECITS (GE Capital IT Solutions) division wherein I changed my expertise to quality control.

After the election of President Macron, I became head of the group of study at the Assemblée Nationale focused on data, knowledge and AI. Such groups of studies are informal authorities opened to all members of the Parliament and their aim is to deepen and follow specific questions, from a political, economic, social or international nature. Theses authorities however do not intervene directly in the legislative procedure. Our mission is to act as a legal and technical 'watchdog' on questions too specialized to be part of an examination followed by standing committees. They are also the place of discussion & exchanges between members of all parties

across the political spectrum. My priorities and objectives are to share with all members a common reference source on the group's theme in order to handle the issues. My job is outlined in the constitution, and it entails meeting with many stakeholders and members of the public.

I decided, as I was elected last year, that I would specialize in digitization and digital policy. This encompasses everything: blockchain, AI, Big Data, cryptocurrencies, you name it. Our division is not partisan and it is going to last for four years, without a doubt. This is unique in the French Assemblée Nationale. The difficulty of our job is tackling the vastly different subjects that fall within our domain. How can the use of data science revolutionize healthcare? How about education? These are two examples of the multifaceted and distinct problems we are tasked with solving.

The goal of the group is to have the technical familiarity necessary to shape productive laws regarding these highly complex systems. This is an important mission, as these technologies and digitalization impact society quickly and profoundly.

Where does France stand, currently, in its adoption of AI and new technologies? What is the country's vision for future adoption of these technologies?

Innovation has always been an important part of French policy. Although the Macron government has made it sound as if it is the first regime to value innovation, it has always been a focus of the French government. We have always valued innovation because it is a way to achieve meaningful economic growth.

In the healthcare sector, insofar as innovation is concerned, you could say that we have previously been lacking in software development. The Minister of the Economy and Finance Bruno Le Maire said, "we have to win the battle on data." Our government, which has a social health care system with tons of state-stored health data, really could be the leader in innovation and infusing data science into medicine.

We could be the European leaders in this field, but we could also work with our strong neighbors, like Germany. It is important to see through sectoral divisions and work together with those who are willing to collaborate. Today, innovations come from the said mindset. In France, it is clear that we have to tear down divisions between sectors and work inclusively. In Europe, more broadly, we all have to adopt a better digital mindset and accept the free flow of data if we are to grow as countries and as a single entity.

What sectors of the French economy is the committee targeting with its work?

We are trying to consider every sector – everyone will be, or at least, should be, affected by the change towards digitalization, from transportation to education. I think that education is particularly important to consider. For now, as twenty percent of the population is elderly and likely won't adapt to digitalization, we need to focus on the youth. And this education is not confined to the classroom – we are trying to influence the culture. We encourage young people to innovate with digital technology in coworking spaces, startup competitions, hackathons, etc. They need to become savvy with the internet and also critical of what they see. They need to discern between fake news and real news, for instance.

We have hosted workshops with private companies, like Google, to encourage entrepreneurship and we offer initiatives to help young people become better versed in digitization. Furthermore, when it comes to government records, we are pushing for people to adopt a "digital identity" and store most of their public documents online/electronically. To meet these ends, we work with mayoral and local governments to create an inclusive educational environment.

Where does digitization fit into the French healthcare sector and what are some of the current applications?

First of all, we need to accept that there will always be a shortage of doctors in every city in France. Never will the demand be fully met. For that reason, we are promoting telemedicine.

I addressed this topic as I travelled to Taiwan for work. I met with a professor from IRCAD (Institut de Recherche contre les Cancers de l'Appareil Digestif) who was working on minimally invasive surgeries with robotics. One of his IRCAD colleagues asked him, "do you think there is a risk if people only learn how to operate with robots? Is there a risk that people will forget how to operate manually?" He responded by saying that the faster the robot is making progress, the higher the quality of the medical staff. Robots are simply a way to improve a human-monitored operation, and there will always be the human overseer of the operation. Tools, like robots, just improve efficiency. There is no need to fear that our doctors will lose their competencies.

Secondly, we are focusing our efforts in increasing the cooperation between hospitals. It is not possible for every hospital in the country to have every type of medical department. It is not feasible. So, we have to ensure that the hospitals cooperate and can share their resources among themselves. We have to invest in new technologies that will help specialists access patients in real

time from a distance (using telemedicine) and shared patient files.

Do you think that France will succeed in creating its large “data hub” for medicine and healthcare?

France has a lot of data from patients and its healthcare institutions. We are committed to changing and upgrading our data system – changing nothing will, afterall, produce the same outcome that we have had. The challenge is in striking a balance between making the data available enough for innovators and secure enough for the peace of mind of the public. I think that these upgrades are going to come at the European level.

We need to keep in mind the work of Cédric Villani. In January, he asked his audience, “are we continue thinking that we have to separate the activity of the sectors? Or are we going to say that it’s time to open up?” Mind you, when we open up, it doesn’t mean that there will be “an open bar” of data, free and available to anyone. There will be controls associated with the open concept, but it must open up.

That said, it is foolhardy to try and plan too far ahead. Look at where we were just ten years ago, or twenty, at the start of the tech revolution. There were hardly personal computers back then, and now look at what we have – smart watches and voice assistants. Things change so quickly in this domain that we can only plan ahead a year or two as policymakers. As policymakers, it is hard to pass legislation on tech advancement. By the time that you get your bill drafted, the technology in question may have evolved or been rendered obsolete.

The new government’s mindset, and the mindset of the committee, is to consider the world as it is today; you have to consider the way that the US and China, for instance, are innovating, and then you have to adapt your policy goals and pass the laws that will best help France win the battle for data supremacy. I think that if we harness our resources at the European level, we can stay strong in this field and get even stronger.

Is there a country after which France models its digitization strategy?

Generally speaking, we are looking closely at what is happening in Israel. We used to do so for Switzerland. India is emerging on the world stage, too. But it is important to have some foresight and analyze the prowess of the countries that, though they may not be leaders yet, are investing

heavily in AI and Big Data. China is one of these countries. While they are not leaders yet, they may be in a few years. They did something similar with their military that played out nicely for them. They invested heavily and it paid off. They are doing something similar in African development at the moment, and President Macron understood this and announced that France will keep pace. We need to keep an eye out for the big investors that will become the powerhouses of tomorrow and match their ambitions.

Do you have any concluding messages for our readers?

#ChooseFrance! But in all seriousness, France is known as a highly advanced country when it comes to technology. We will be champions in the healthcare sphere. Improved digitization is just one of the reforms that are underway as we improve our already strong medical infrastructure.

Going back to the situation in the French hospitals – it is well known that our hospitals are under intense pressure and they are thin on resources. One solution is to recruit thousands of people, but if you look deeper into the situation and you analyze the daily jobs of hospital workers, they are spending less and less time by the patients and more time on administrative tasks. I am sure that digital innovation could change this paradigm, and help healthcare workers spend more time with patients and less time with computers. I have doctors tell me that they spend 30% or 40% of their time on administrative tasks, and that is not productive. Imagine how much the overall ecosystem could improve if an IT service could halve their administrative burden. Patients would get more appointments and young doctors and caregivers would receive better training. This rate of inefficiency would have never been tolerated in the private sector; they would have quickly invested in innovations to streamline their processes. We need to do the same thing in the French public sector.

See more interviews