

# FRANÇOIS BARRAULT

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I am lucky because I had my first computer in 1977. While most of the 16 years boys were eager to have a motor bike, I've asked my parents to have a computer and since I have been observing the evolution of technology being an active player. I will not talk about technology and all the buzzwords such as AI, Blockchain, cloud etc., but I will talk about the influence of technology on the way we live, communicate and operate on a daily basis.

Firstly, the big revolution technology has brought is instant access to knowledge and information anytime, anywhere. Knowledge has been an asset discriminating poor and rich for centuries, and at the beginning of 2000, through blogs, Wikipedia..., it became a shared asset, and all of a sudden, everything and experiences were shared through blogs and websites. What does that mean for people? When you keep information for ages and then share it, it creates new reflexes. You share your car, your home, your apartment, your office, and you share information and experiences, and regarding what it means for business? As an example if you share your car, you have new businesses popping up. You can share your experience by taking pictures and sharing them with friends on the various social networks, and you can also share your apartment via Airbnb. It creates then new reflexes and questions: should I own a car or a flat or should I just use it according to my wishes in a peer to peer platform.

I have a team looking for an office in Paris, and the three offers they got were not for traditional offices but colocation. What does this mean for businesspeople? This totally changes the way they operate. Carlos Ghosn explained this very well. Carmakers produced cars for many years, but now and in the near future, they are producing a service, to go from A to B.

Regarding another thing which has a big impact on our lives, this morning you should have received the statistics on how you have been using your iPhone. Because we are reasonable people, we might have had 100 interactions during the week, but some kids in the US have 500 per day. What does this mean for the brain? Instead of delivering a thought process over hours, which is what we used to do when reading a book or whatever, the brain is attacked every seven or 10 seconds, meaning that the neural node topology of the brain is being reconfigured. It creates addictions, it creates a new form of depression, and it also creates avatars of our personalities.

I organised a meeting with 14 people three weeks ago and told them they would not have access to their iPhones or tablets for four hours. It was funny to see their reaction, because after 10 or 20 minutes some of them were in addiction mode, like with cigarettes or alcohol. Therefore, little by little, this constant interaction with the brain becomes an addiction.

Another impact is that we all communicate on an asynchronous basis every day. We have friends, families and so on and we share experiences. The more we communicate like that, the more we need to be together, so a new set of businesses are exploding – music concerts, sport bars – and now in Paris and London, for example, you can see hundreds of young people hanging around these bars. One thing technology has changed in our habits is the way we shop. We all shop online. What is the impact on the network of shops? All the corner stores are now doing very well, because they are convenient, all the big shops, the mall stores, are an experience, so you go in and hang around, but the in-between shops are not convenient, fun or an experience. For example, in London, 35% of commercial spaces between 200 and 4 000 square metres have no future.

Another example is entertainment. We used to buy LPs, CDs, cassettes, DVDs and whatever, but now nobody does this – you go on the Internet, you have Netflix, but not only that, the younger generation does not look at linear TV but at Netflix and other non-linear TV. My point here is that, little by little, not only does technology change the way we operate, but also changes our relationship with things. The change is very fast, and the impact on the CAPEX and OPEX of traditional businesses creates a paradigm which is very difficult to anticipate.

Just to finish, what comes next? There will be three parallel revolutions in the next 18 months that will change our lives even more. First of all, the speed of communication will be multiplied by 10. 5G and 5G Plus will move the speed of communication from 100 MB to 1 GB or 10 GB. Secondly, the next generation of sensors and IoT will make things much faster, much smaller, and in a few years from now you will have a chip in your body, and the data will be set for

working, sleeping, driving or whatever. The power of the new Quantum Computer will also set new Moore's law standard and the capacity of storage will be infinite, cheap or free and secured.

Finally, the next generation of algorithms will aggregate all programmes in the cloud at the speed of light and will provide on a real-time basis all the algorithms for making things faster, cheaper and so on. Here, when the rate of change is faster than human reflexes, we can talk about AI. Just to give some data, the speed of the Internet is about 300 000 km per second, the speed of light; in the brain, the speed of data is 100 metres per second. Therefore, right now there is a competition between the brain and the process of watching things and operating things. Is the future bright or not? I do not know, but we need to be very careful about how we use technology, because it impacts on our lives and the way we communicate, and we need to be very careful to ensure our kids have normal lives and play with toys like we did when we were young.

### **Virginie ROBERT**

This is a good way to introduce our next panellist, because you will talk to us about smart cities, and of course the augmentation of speed in new cities will drastically change urban life. You have specific examples of what is happening in South Korea.