

DEBATE

Patrick NICOLET

I think this is a very good summary and position from Aurélien, it does not require any summary from me, and with this I have the pleasure to open the floor for questions to our young participants.

Amanda Onamandla MATHE

Amanda, from South Africa. The questions I have are pertaining to some of the developments each of you has made in terms of your research. What is it shifting in terms of policy, specifically, and what is the impact on the community? It is great to hear what is emerging from those that are, I would not say slightly older than me, but from those that are considered young leaders, what is exactly are your developments and your research? What policy is it shifting, and what is the impact of that shift, and what is your trajectory and your sustainability in changing that policy?

James STUEWE

My name is James Stuewe, I currently work for the Government of Canada. We have a room here full of industry leaders, government leaders, and I just ask the panel, if you think about your current situation, your desire for growth, and how you look to drive the good work that you are doing, what is the one specific thing, that you would put in the ear of the leaders here who manage and drive the behemoths of the world? So that when they run into small organisations, start-ups, and organisations like your own, what is the one thing that you want them to remember? Whether it is to forget about risk aversion or something else? I would be very interested in that, thank you.

Manu Mallikarjun

I am Manu, I am an engineer from India. I have a question for Aurélien. When we speak of cybersecurity in the EU, I have a feeling that unless we resolve some of the larger geopolitical issues, we will never have that because it is an escalating war, just being played out in different ambits. I am curious about your take on that, because it is not only a question of defending ourselves using the tools of technology, but to break the will of the opponent, so I am maybe referring to Russia and what has been happening of late. I just wonder if there needs to be a more comprehensive approach when we speak of cybersecurity concretely.

Patrick NICOLET

I suggest we take cybersecurity at the end, it is more specialised, but views from the panel: shift in policy and impact on communities. I think communities are really one of the foundations of this new economy. We create a lot of communities, we grow people through communities, there is less hierarchy, and so what are your thoughts? Who wants to give it a first go?

Natalie CARTWRIGHT

In terms of shifting policies, the one that we see most often is around data and how data has to be handled. We have seen a big change in the EU legislation around data, especially personally identifiable information. The challenge for companies is that every country has different legislation.

At Finn.ai, we work across four continents. This varied regulatory landscape makes it very complicated to work at our scale. It would be ideal if there was a single global entity to oversee compliance, especially for smaller companies.

In terms of one of the biggest lessons I've learned, it is the power of partnerships between large organisations and small organisations. We have built effective partnerships with banks and they bring so many things to the table that we would be unable to deliver. Things like scale, operation, capacity, risk management, and an extremely large base of customers. In exchange, we provide our bank partners with innovation, something that can be difficult for such a large-scale business to adopt quickly. Working closely with our bank customers, we're able to provide them with a cost-effective way for them to introduce innovation responsibly.

I believe this is an effective model that can be leveraged across all kinds of different industries, including government.

Arthur STRIL

I really like James' question of this one thing to remember, and it is going to be an obvious one. People say a lot that entrepreneurship is about risk taking, I disagree, and coming from a scientific background, I think it is just about experiment. My advice is: do not be afraid to experiment in everything; your business, your daily life, it can be starting a small project you think is stupid and will never work, it can be downloading "Zombies, Run!" when you leave here, so really do not be afraid to experiment, and if it does not work, just kill it, but kill it fast.

Edouard NATTÉE

One point on this question as well. My job when I see CEOs of retailers, big companies, I do two things, the first thing that I do is I start by showing their own numbers and the guy is like, 'Oh, how do you know my numbers?' and I explain it to them, and then I tell them that I have got the competitors data as well, and this is how we do business. The second thing I tell him is that in 2003, I was dreaming of being at Lehman Brothers, I was using taxis, I was buying my PS4 at the local store, I was on Facebook, and every kid was on Facebook. Now, in a matter of 10 years, these things have changed and some of them have even changed in four years. Most of the CEOs with whom we discuss, all the discussions end with: 'The probability of your business not being Uberised, or totally transformed, is absolutely zero, unless you Uberise yourself'. I have got one example, one company who Uberised itself is Indigo, previously called Vinci, and it is the world leader in parking. Those guys were very courageous because they created a small start-up called OPnGO, which is the Uber of parking lots, where you choose a parking space, in a minute you have the location, you go, you do not need to do anything else, your number plate is recognised and so on. This is the only company that I know of that has made such an effort to avoid being challenged by the new economy. That would be the warning I would give to any CEO.

Allen ALI MOHAMMADI

Regarding the first question about shifting on policies, I would say, since we have been working with the governments in different countries and different continents, of course, some governments tend to change because they see the impact, how impactful it can be. For example, in our own case, how much money we can save for them, and how impactful this project can be for them, so they tend to change the policies and in the long run it will be sustainable, but on the other hand there are countries that are very conservative and it takes some time.

When it comes to a word that remains here, I would just say, do what you love and never give up, because this is the only thing that can be sustainable in the long run. I was reading an article saying that research in US suggests that the majority of people do not like what they are doing, and I am very surprised. I usually ask people, 'Do you love what you are doing?', and they say, 'Yes, we love it'. Yet, when you ask, 'What is your dream job?' they will say something else, so it is not what they love. The only thing that I would say is: do what you love and never give up because this is the only thing that can bring you happiness.

Aurélien BILLOT

I am going to respond to the first question on policy shifting. I see a tendency to go from national policies to European policies, at least in this field. Some EU countries used to be very protective on these issues, others are more open, but there is this feeling that the fragmentation of national markets is, in itself, harmful for the industry

and that we have an incentive to gain an edge in standardisation. At the same time we need of course to have a collective response to the personal data issues.

On Manu's question on cybersecurity, I will leave the floor to Patrick.

Patrick NICOLET

I think your question on cybersecurity is a different area, because you have to start with the threat. First, threat is permanent, and comes from very different horizons; it is national, military or non-military, organised crime as a threat, there are what I call the libertarian hackers, the anonymous type, and you have the sheer incompetence of everybody who make mistakes that generate cybersecurity vulnerabilities. In this context, your response is diverse today, and as I answered a question yesterday, there is an arms race on technology but then you have to know what is it that you want to defend? In similar situations, before cyber warfare, there has never been a no-risk situation. The corporate world is involved into it, it is, what we call in military terms, asymmetric warfare. Cybersecurity is a typical example of an asymmetric type of warfare, where a small entity can challenge a much larger organisation and create disproportionate impact. Corporations are involved in this cybersecurity question, like it or not, because we are the vehicle, we are the means, through our networks, through the technology that we have deployed, and we are part of this, but from different angles. There is no structured answer so far. There is a lot of coordination between the different institutions, and it is new for the corporate world to be involved in such activities as it was not the case before. We will have to organise a response, first an industry response, when it comes to the enterprise world, and then connect with the different agencies.

Hermine DURAND

Hello, thank you very much for your speeches. I am Hermine Durand from France. I have a question for Allen. I would like to know how it works, because I am quite curious to know how you bring the data together, and why it has not been done before, and can you apply your method to other diseases, what are your next projects?

Allen ALI MOHAMMADI

At the core of the technology, we have developed a software which has different categories of parameters. One is the demographic data, which is how old you are or are you male or female, or do you smoke, these type of parameters. The other category is the electrocardiogram, or ECG, some parameters will be extracted from the ECG that we input into that category. The other category is a normal blood test. The users of the system are healthcare professionals, like doctors or cardiologists or nurses, so they use it in primary care so that they understand, for example, if there is a need to do an angiography operation or not. Today, angiography is the gold standard, when they want to see and make sure if, for example, one of the main arteries of the heart is blocked or not. The question was why it had not been done before, and this is because it is the emergence of artificial intelligence. The data is there, it is the way that we handle this data. Today, when we go to doctor, they use man's intelligence, they correlate this data in their brain, but a human brain is limited. The strongest brain can maybe correlate 10-20 different parameters, but we look at about 50 different parameters, so this way we can come up with more accurate results.

With regard to other diseases, we have built a foundation that can be used for the complex diseases, but the current focus is heart disease because heart disease is the number one cause of death around the world and about 17.5 million people in the world die every year, just because of heart disease. Of course, in the long run we have a plan to extend it to other complex diseases, like cancer.

Estelle YOUSOUFFA

My name is Estelle Youssouffa, and I am a journalist. I wanted to ask the panel their thoughts on, what I see as a tension regarding this new digital era. The data that you are talking about is a commodity for business, whereas for government it is statistics, i.e. for some it is money to be made, for others it is the obligation to protect privacy, anonymity, and the right to be forgotten. When I listen to the health applications that you are talking about, as a

cancer survivor, I would be very scared that those data would be used by my insurers, as in paying a premium. I think that is one tension, and our colleague from the European Union mentioned the tax evasion. In a way, business corporations are expecting that will lead to what you mentioned about cybersecurity, are expecting governments to step in in terms of ensuring security, but are they paying the price of accountability that Edouard mentioned? Corporations are trying to pay less and less taxes and being less and less accountable for a field where they almost have total monopoly, so I would like to have the thoughts of the panel on that.

Aurélien BILLOT

There is a trade-off between science and ethics. Science without ethics, in modern terms, does not bring us very far. What we can see in today's globalised world is that you can choose to have lower standards in terms of conscience or ethics, and thereby to gain a competitive edge. We see that with personal data. On the one hand, it is clear that if you give low protection to personal data, it will be much easier for anyone to create their business using that data. On the other hand, if you set up very strong regulations, this will make economic opportunities more difficult. This phenomenon is increased by the fact that in the data economy you do not fight to be better than the others, you fight to be the best: indeed it is a platform economy, so in a way, in such or such sector, you need to be first.

I think that in Europe we can reach an agreement on what is the right level of data protection. You mentioned the right to be forgotten: it is or will be in Euro legislation, so there will be an EU standard. But there will also be standards in other parts of the world and this will interact with competitiveness. So I have a question for you: where should we discuss this? Is there a place, a way to discuss this in a fair and democratic way given the pace of change?

Edouard NATTÉE

I would like to add two things on that point because that is essentially the heart of my business, saying what is personal and what is anonymised data? The first thing that I want to do is make a compliment to the public which is: previously all regulations about private data only showed one thing, which is the guy who wrote the laws did not know much about what he was writing about or at least it was not aligned with the state of technology and the reality of what data was. For the first time GDPR, which is the regulation that has to be enforced by May 2018, is the first regulation of its kind which is matching in terms of expertise and what we live on a daily basis in our businesses. The correlation of having more expertise from the law-makers is that it creates opportunities for companies like Fox Intelligence, for example, because in GDPR, anonymised data, for the first time, has been properly described, and we sell anonymised data. My take on that is, by integrating private sector in the debate, by elevating the level of expertise from the public sector, we can achieve the kind of things that have been achieved with GDPR.

Natalie CARTWRIGHT

I spend a lot of time thinking about PII (personally identifiable information) versus non-PII, (generic information).

My business is defensible from threat because we rely on a large amount of non-PII. The data we feed into our model focuses on the questions that are asked by the end user such as 'What is my balance?' 'Do I have money?' 'Can I afford this coffee?' We don't store the answers which would be PII.

Where it gets interesting is the personally identifiable information. For example, although most people are hesitant to make their healthcare information available, I found myself in a situation where I wanted my healthcare information to be available. I lived in multiple countries, I kept moving, and every time I moved, they refused to release my health records.

As a result, today I have no continuous record of my healthcare past which is not ideal. But I believe this tense data sharing environment will work itself out because one of the promises of AI is a level of personalisation that we have never experienced before.

Consumers will be able to drive value from their data, from different businesses, including what they choose to make available. I think the logical consequence of policies will have to find a way to give each individual user the autonomy to determine where and how they want their data used.

How this is managed and handled will definitely take time. It will also take a lot of technology. But I am convinced that we are going to see a personalisation in terms of people choosing, in a very granular way, who and where their data can be used.

Patrick NICOLET

One point from the enterprise perspective. In fact our entire society is mechanical process-centric, processes are something from the '50s and '60s, it has developed, and all society was organised around processes. With what you have just heard, we completely shift towards a knowledge, data-centric type of organisation, so it rocks the entire enterprise. It is a big challenge, but it is a challenge for society as well. You are constantly rebuilding the way you operate and one of the big challenges that large corporations have today is how do you keep it together? Because the tensions are coming from everywhere. I was discussing with the chairman of a large insurance company in the US, and he said, looking at his value chain just to illustrate my point, 'I am being attacked from the back, in refinancing, by fintech; from the front by the type of Google; and in the middle, in risk management, there are all the algorithm developers that are playing with this. I have already subcontracted my underwriting activities so what am I left with? What makes the value?' We speak of a complete, significant activity; that is insurance. That is the reality. The discussion we then had was 'Okay, how can we maintain?' because the value is maintaining this value chain together, and then he said, 'Okay, how can you interoperate with me?' Which, for us, is a completely new world of engaging with our clients, so it is new to us all.

In terms of policy and responsibility, you are right it is an important point. Beyond GDPR, there is another European directive called NIS, network and information systems, that comes into law in May, that defines the responsibilities, notably between operators, service providers, and enterprises, who is in charge of maintaining what and if you fail, like GDPR, the fine is up to 4% of your revenue, which is a large amount of money for anybody, whatever your size.

This is a first attempt, but fundamentally, we all have to rethink the way we operate, and we do not have all the answers today.

Edouard NATTÉE

Going back to your question, James, one thing for me that makes the difference between most of the companies that I have seen as potential clients and the start-ups that I see, is that there is a hidden principle in every start-up that I do not see in every big company. This hidden principle is: you always hire people that are better than yourself, who have at least one thing where they have more talent than yourself. You see the opposite in many companies. You take somebody who is not going to be challenging you, who sometimes, let us say, in a political party, would agree to do things that you do not want to do. The consequences of that are, after 20-30 years is you end up with a GOP in the US, the Republican Party, which is basically if you always hire somebody who is just a little bit more talented than yourself, then you just take one generation, and you are gone. The difference with start-ups, since we do not have that much money to hire people, we always make the effort to choose somebody who has something to bring to the company, and that would be what I would like to leave in the ears of a CEO today.

Patrick NICOLET

Thank you for your participation and I hope it will bring new light. Thank you.