

## HOLGER MEY

Vice President, Advanced Concepts, Airbus, Munich; former President and CEO of the Institute for Strategic Analyses, Bonn

### Jim HOAGLAND

Holger Mey has a title that most of us would kill for in our organisations. He is the Vice President for Advanced Concepts at Airbus. Advance us, Holger.

### Holger MEY

Thank you. I want to talk about two points basically and illustrate them a little bit. One is society and the interrelationship of high-tech, in particular artificial intelligence with society, and then with economy and digitalisation of economy.

The first point is of course the relationship of freedom and security, as it is related to surveillance and control. Now, freedom and security is not a trade-off relationship, as it is often being put. You have total security, no freedom, or total freedom, no security. I think without a certain degree of security, we probably have no freedom and cannot enjoy any freedom. The freedom of the people in the World Trade Centre was to either jump out of the window or get burned, and that is of course not the freedom we mean. There are sometimes, in some countries, after sunset, two groups of people in the streets, criminals and victims, and that is also not the freedom we want. Therefore, we have to look into the question of how we structure and organise all our societies, be it China, be it the West, whatever, in this relationship of security and freedom.

Now, I want you to imagine 5pm, rush hour, in Paris, Washington or any big city, and you walk through the streets. What do you see? Almost every intersection is blocked, because people drive into the intersection, although they cannot pass. It is because they are inattentive, or just selfish and ruthless, whatever, but it does not work. Now, you have the autonomous car and the artificial-intelligence-based traffic control system, and you can easily imagine that this problem will be solved. There will be a smooth flow of traffic, and it works, so far so good. Until a person, a pedestrian, steps onto the street. Now, the car will stop. What does this person learn? 'Hey, I can walk onto the street whenever I want and all traffic stops'. Therefore, we will experience a complete breakdown of traffic because of the behaviour of people.

Now, there are two ways to deal with it. Either you programme the car in a way that it once in a while overruns pedestrians and they learn to pay attention, or you have video surveillance anyway everywhere, and there is of course biometric data recognition, and you step onto the street and then you will read on your mobile device, 'Well, we just deducted EUR 1,000 from your account. If you do that again it will be EUR 5,000. If you do it once more, you will be in prison for one month'. Therefore, we learn to behave, right?

Now, the individual in the past was committing a crime, or a terror act, whatever. It was a very regional, probably only local event. However, with the empowerment of people, in particular with modern technology, be it biological weapons, be it cyber weapons, be it misbehaviour in a society, in a structure and an environment which is networked, you have cascading large scale effects. Therefore, the impact will be more significant, and now it is about the comparatively greater impact relationship between the individual and the collective. I think it does not take much imagination that China has a clear idea about the relationship between collective and individual, as we have, and it is probably a little bit different, but it is important to talk about it and to understand that no matter what society, we have to talk about this relationship and how we balance individual and collective.



Now, I have argued that security is prerequisite for freedom. This is clear in the social-, I mean if you are hungry, you do not ask for freedom of press, as we have heard from Marxists before, but this also applies to the security in the streets. Now, how does a collective protect against individuals who misbehave, and how to protect the individual of course. I think we should start thinking about something which my friend, Parag Khanna argued so nicely. All societies need to adapt and to think about a combination of the Swiss and the Singaporean governance models. Switzerland, because you discuss in a basic-democratic fashion locally about fundamental issues, important issues, values, and Singapore, because you have the very best technocrats working in the government. I think we have to creatively think about it because only the combination will probably do it.

Now, the economy. We all know the answer is digitalization, but what was the question? It is I think about turning art into science at the moment. It is engineering art, not science. It is the art of war; it is the art of cooking. Now, if you go to a restaurant that has a three-star Michelin chef, and he cooks a wonderful dish, and he gives you the recipe. You have the recipe in your hands, and you go back to the kitchen and cook the same thing, exactly what is written on the paper. It will be a nice dish, but not as good as the dish from the three-star Michelin cook, the chef. Why is this so? Because documentation is never complete, and there is something which has to do with feeling, experience, whatever. Therefore, you read there, 'take a little bit of salt', but what is a little bit?

If this is digitalized, it is a precise number. We call it production data. If you have the production data, you know how to do it precisely, and exactly as the three-star Michelin cook. Therefore, how can Germany in the future export Audi, Mercedes, BMW, Porsche if everybody, at least most of the countries, can produce the car in exactly the same quality because it is based on a digitalized production where you have the production data at some stage? Steal it, buy it, you know, have spies, whatever. The problem is how can we make sure that we stay ahead in a sense, and the interesting thing that invention only helps very shortly because if you are an artist, a sculptress and you make a nice sculpture, if you put it into the 3D printer you have two million originals. It is not distinguishable anymore.

Therefore, Germany invented the telefax, but Japan produced the telefax and marketed it, and made the money. Even if you are in China for a long time, just a copycat economy, you make money not by just inventing things, you make it be doing the application, and selling it. The problem is that we are challenged with innovation and high-quality manufacturing as we move into the digitalization, a process we shouldn't stone-wall and cannot stop, but do need to manage..

I think the problem with the intelligence in this whole part is I am not so much concerned about artificial intelligence, I am more concerned about human stupidity. The question how we use this, and I think if we think it through, it is not about intelligence *per se*. That does not necessarily do us any good as we see with many modern autocrats and dictators in history, they were not necessarily stupid. However, it is related to civilization, to culture, to values, to the question of reason, and reasoning. That is something where we might still have a certain competitive advantage to very intelligent machines.

To put the so-called artificial intelligence into a broader, more fundamental perspective but also into the distant future where not just the brain based on hydro carbon (like the human brain), but also the brain based on silicon or gallium arsenide (like the computer): As I have argued two years ago here at the same place, referring to Ray Kurzweil, who wrote an article about 20 years ago, and the title was wonderful, the title was, *The Computers Will Convince Us that We Are Superfluous*. If we as humans do not want to end up in a zoo and little robot babies make fun of us, we better start thinking about our own role as human beings and how we use so-called artificial intelligence for the good, which goes beyond intelligence and is related to culture and civilization. I think we need this debate in all of our societies, because our different societies will deal with this challenge differently. Thank you very much for your attention.