Keynote address by Mr Carlos Moedas
at a dinner for the AKU Board of Trustees and their Portuguese partners
Lisbon, Portugal, 13 April 2019

Your Highness the Aga Khan, thank you very much
Princess Zahra Aga Khan
My dear friend, former Deputy Prime Minister and Minister for Foreign Affairs Paulo Portas
Chairman Haile Debas
President Firoz Rasul, thank you for your introduction
My dear friend, Ambassador Nazim Ahmad, always a great friend for a long time and a great man
Honourable Trustees of the Aga Khan University
Dear Friends

Thank you so much for inviting me tonight. I have, let me tell you, a huge admiration, a huge admiration for your community, Your Highness, and for your leadership.

And I remember the conversations at the time when I was in the government with Nazim Ahmad and so many of your community, and there were two reasons I thought today, before coming here, why I respect so much your leadership. The first is that as a supra-national leader you have always been a bridge builder - I mean literally, you have built bridges - but you have really been one of these men that has built bridges to connect us all and we need that today. And as a religious leader, I think that you have also something that always inspired me, which is this link that you always make in between spirituality and the problems of today. Spirituality, and solving the problems that we have from climate change to inequality. And that's extremely inspiring, and that's why I thought about science as being the major tool that we have to solve those problems. To actually make it happen.

And you love science, I even heard that you were accepted to the MIT at some point in your life and you decided to go to Harvard, which I did too, the same mistake!

So tonight, I wanted to talk about what you asked me to, which is a little bit this link in between science and education. And impact of the policies that we have at the European level with science and what's the impact on education.

And one day, in one of your speeches, you talked about your idea of education and you said that "Education is about equipping each generation to participate effectively," you said, in what you called the "**great conversation of our times**."

And so the question is that, what is that great conversation of our times? And the great conversation of our times is actually quite simple, it's how do you face these problems that we have in the world, that are global, that are supra-national, in a world that is more and more fragmented?

And that discussion today, which seems to be discussing about multilateralism or discussing politics, is actually not about politics, it's about education. And about education in a world that has changed so much but the educational systems didn't change.

And you look at the world that we were born, a world where everything was basically streamlined. Everything was about geography, about disciplines, about borders. And the world

today is about intersections. And I think that that's where education should be. And that's where we haven't really made the case and the discussion about these intersections.

And I thought that I would tell you about what those intersections, in my view, are, and the importance of those intersections.

First, I think we have this intersection in between disciplines and geographies.

And science is a great example of that because science was ahead of the curve. If you look at the new breakthroughs, they are all at the intersection. At the intersection of disciplines, at the intersection of countries, or religions.

Last week I had one of my best days of the European Commission. We had this amazing opportunity of announcing the first picture of a black hole. Imagine, I was there with the scientists announcing the first picture of something that we were never able to have a picture of: a black hole. And I thought about that, that day, because we had 6 press conferences all over the world at the same time. We were in Brussels, Francis Cordoba was in Washington, there was in the team more than 200 scientists and those scientists were from 40 different nationalities, from different countries, different religions, all working. But all working for what? To prove what one man, one man alone imagined 100 years ago. Einstein, alone, in 1915, he writes four papers, and he changes the world.

So if you really change and you want to change education, we need to change that, we need to change the way we teach. And we need to change the way we teach because we have to teach better the core of the disciplines so we have people at ease, navigating at the intersections. Every time I go to the Nobel Prize, I always see that. This year again, we had Frances Arnold. She is the fifth woman to get the Nobel Prize for Chemistry. She started studying Russian literature, then she was a mechanical engineer. By the age of 30, she kind of liked chemistry and she started, and she ended up bringing biology to chemistry. She basically uses evolution to transform plants into fuels for airplanes. I think this is an amazing story and shows how we are not dealing with today in most of the European countries and I think also in a lot of other parts of the world, these intersections. We don't know yet how to deal with it, we had the first experience in Finland about teaching young students in secondary school, not just disciplines but also to look at events from different angles, like the Second World War. How do you look at it in terms of sociology, or in terms of anthropology, or mathematics? And so you really have to go in that direction.

The second intersection that I wanted to tell you about today is this intersection that I call the dream and the detail. You have to dream but then you have to focus your mind on the detail. I really came up with this idea from a good friend of mine who is the founder of SAP Jim Snabe, who wrote a book about it, about this other intersection. Because if you want to be very, very, very good at the intersections, you have to be very, very good at the core of the discipline. And to do that, you really have to focus your mind. If you want to have creative moments, you have to focus your mind every day.

And there's a story that I thought about telling you that I love so much that is one of my preferred books. Walter Isaacson writes about Steve Jobs and he tells a very interesting story. When Steve Jobs was very young his father asked him to paint and fix the fence around the house. And Steve Jobs went there and he painted and fixed the whole thing and then he came and the father said look but there's a part of the fence that you didn't fix, you didn't paint. And he said "No because that part is hidden behind that tree so nobody will ever see that." And the father said, "Yes, nobody will see it. But you will know about it." And years later, when he was

launching the Macintosh, remember the Macintosh was like a big box, and he went there and he saw that the chip boards and the wires were all messed up. And so he looked at the engineers and he said “No, you can’t have this. Everything is messy.” And the engineers said, “Look, but, we don’t need to fix it because nobody will ever see it.” And he said: “But you will know about it." So he got the shipment stopped for 6 weeks, it was a lot of money, but then everybody was clean to the detail inside of that box.

The point is that if you don’t focus on the detail, there’s no creativity. Writers, every day they work and they write even if they don’t want to write, one thousand, two thousand words every morning. And I think that we lost that also in education because the dream is the inspiration, but the detail is really what you have to do every day, to make the dream happen. And we live in a world of technology where you tell your children that everything is very easy and you look at the screen but know you have the detail to get the detail right.

The third intersection that I wanted to tell you about, which has been one of my passions in the last five years, is about the intersection of the physical and the digital worlds. Because I think that today we have very good engineers that are very good at the physical side of engineering, then we have very good people in IT, that are very good at the digital, but nobody is good at the intersection.

And one of the stories that inspired me in these five years was two years ago I met a great woman, a great professor at the Aga Khan University called Marleen Temmerman. She’s an amazing woman. And we were giving this prize related to childbirth, maternity, that we do every year at the Commission, and there was a story that came out there with Marleen that I wanted to share with you. It was about a young man, Joshua Okello, he was born in Uganda and he has inspired your University also.

Joshua was a medical student and he soon realised a shocking reality: every minute, every minute, a mother dies from pregnancy or childbirth related complications and 99% of those who die are in sub-Saharan Africa. And so he said I have to do something about this. He was in medical school and he decided to help midwives. He went into the rural areas and he basically got to “What is the main instrument of the midwife in rural Africa?” And it’s something called a Pinard Horn. It’s a 19th century instrument. Imagine a hollow cone where you just put that on the abdomen of the pregnant woman and you just try to listen to the baby. But, you know, that takes a lot of training, so the very good midwives were quite good at it, they did it very well, but you need years of experience, I mean if you just try to hear, you don’t hear anything.

So, he said I’m going to drop out of medical school and he did it and his idea was simple, it was to connect the Pinard horn to a smartphone, and by doing that, he basically got untrained workers to put the Pinard horn with the telephone, the data will go to a cloud, and then to any doctor in any good hospital in the capital of the country. And I think that this is an amazing story because it shows that a young man felt that he was not being trained as a doctor on the parts that could help people, which is this intersection of the digital. I know that your University has been inspired by that because I read that you are developing a portable ultra-sound and it’s something I’d be very interested to talk with you about in the future.

This great example of Joshua, I think that is an example that you have to think as a university, what do you want to train people for? Is it for a profession that probably in 20 years will not exist?

I was at Carnegie Mellon and my friend Subra Suresh was telling me, “We’re changing everything. If you like music and physics, come to us, we’ll do you a degree in music and physics. If you like IT and medicine, you also do the same.”

So, this idea that universities are preparing you for a profession: Yes, but you have to have the freedom to build also around that in those intersections.

So I think that, Your Highness, ladies and gentlemen,

The great conversation of our time is exactly here. How, in a globalised world, with all this, can we retain somehow our humanity? And you ask questions about what you think your children will be, about what you’re going to teach and educate them, but the big question is how do you create purpose for them?

And I think that the answer to the question of purpose lies exactly in these intersections, because these intersections are what make us human. Because machines will do most of the rest. Machines can have all the numbers and we can digitise everything, but we will not be able to digitise at least to the point of singularity in the future, in our lives, these intersections. And I think that if we think about these intersections as a way of getting us to the future as better human beings that are complementary to machines and not something that machines will just replace you, then you have a vision.

And that’s the vision that we have put forward in Europe about this AI for humanity. Where AI helps you to be more humane and a better person. And I think that the challenge is that, in the future.

One of the speeches, Your Highness, and I would like to end with, is that your inspiration as a person, as a man, as a religious leader, in education says it all. I was reading something that you said and actually is what I think. You said: “The deficit of knowledge is in many areas which are not being offered in education […]. Because what have been inherited are curricula of the past, reflections of the past, attitudes of the past, rather than looking forward, asking what do future generations need to know.”

Thank you very much Your Highness for your inspiration and thank you very much to all of you here tonight.

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