This Being Human
Episode 8 – Ayesha Khanna

ABDUL-REHMAN MALIK VOICEOVER:
My name is Abdul-Rehman Malik. I'm canvassing the world for the most interesting people, to hear about their journeys, their work, and what it means to be alive in the world today. And perhaps nobody has captured that experience of being alive better than the 13th-century Persian poet and Sufi mystic Jalaluddin Rumi in his poem "The Guest House."

FEMALE VOICE:
This being human is a guest house.
Every morning a new arrival.
A joy, a depression, a meanness,
some momentary awareness comes
as an unexpected visitor.
Welcome and entertain them all.

ABDUL-REHMAN MALIK VOICEOVER:
So welcome to *This Being Human*, a podcast inspired by Rumi's words and motivated by all those who carry that message forward in the world today. Today, AI visionary Ayesha Khanna.

AYESHA KHANNA
The whole concept of prayer in all religions is that is to put a distance between you and the noise around you. How do we find ourselves in our education, in in our health, everywhere in this rapidly evolving beast of an AI which has so much information on us and is constantly stimulating us?

ABDUL-REHMAN MALIK VOICEOVER:
Dr. Ayesha Khanna believes that artificial intelligence has the power to make society more fair. As an author, consultant, and co-founder and CEO of ADDO AI, she is a global leader in the field. Forbes has called ADDO one of the leading AI companies in Asia and has called Ayesha one of Southeast Asia's groundbreaking female entrepreneurs. She has worked on big, flashy projects, like smart cities and major transit systems. But she's also used AI for things like addressing staff shortages at a hospital network, and making it easier for farmers to find the right insurance.

For Ayesha, AI is ultimately about *us* — making life better for the people who use it. I reached out to her because I wanted to know what we could learn about humanity from someone who spends so much time thinking about technology. Ayesha Khanna spoke to me from her home in Singapore.

ABDUL-REHMAN MALIK:
Ayesha, thank you for joining me on *This Being Human.*

AYESHA KHANNA:
Thank you so much for having me here.

ABDUL-REHMAN MALIK:
Ayesha, I want to take you back to a particular moment in your life. And I know that you spent a decade of your career working on Wall Street in the heart of the financial district with all the

intensity and the challenges and the paradoxes that I'm sure that contains. Were you a wolf on Wall Street?

AYESHA KHANNA:
[laughs] I was not, just for the record. But that was a very exciting and interesting time because Wall Street was one of the first places to invest heavily in computational systems, in understanding the power of algorithms and statistical calculations to really become more productive and innovative. And then the tech companies came and then, of course, more and more the wave has started coming to more industries now.

ABDUL-REHMAN MALIK:
Well, you know, I think I think there are certain people who might dream, you know, of the day that they get to be on the world's largest trading floor. They get to be at the heart of where billions, maybe trillions of dollars are exchanging hands every day. Take us back to the first day on the job. What where were you coming from? What were you thinking? How did your time there change you?

AYESHA KHANNA:
I came in as a software engineer. So it was very different. So a couple of things. First of all, it was very unusual to have women as software engineers on the floor. And secondly, you know, it's a very — you know, the software engineering group sat in a very cozy little corner. But then we had to go to the trading floor to actually meet with the traders and talk to them about what they needed and how the models were performing. And that was very intense. I still remember I was talking to one group and I heard this trader on the other side literally slamming his phone down and breaking it. And nobody kind of blinked. Basically, I was petrified as a young, first-time employee in that institution. So it was very intense. But for me, the beauty of it all was not so much the finance, but it was much more the systems that I was building. And that has always been my interest in technology and how it can move the needle forward in what a business wants to achieve.

After the financial crisis, even though I was not directly involved in those collateralized debt obligations, I was put off a little bit by the lack of governance. And that is why I started to move a little bit more towards other companies then and try to think about what we could do at a larger scale in other industries and also in cities, which is how I got the idea of Smart Cities. Because I felt in a city, a consumer is not a number at or just a client, it's a citizen. And that reminds you that they are humans, that they have interests, that they have dreams, and they have aspirations. And I needed that re-anchoring and I think all of us should have that.

ABDUL-REHMAN MALIK VOICEOVER:
These thoughts about society and citizenry weren't entirely new. Ayesha grew up in Lahore, Pakistan, in a family dedicated to public service. Both of her grandfathers were in the army, her mother was a professor of English literature, and her father was a senior civil servant. So discussions around justice and civil rights were common in her household.

AYESHA KHANNA
Yes, I think I've always been interested in human rights and the democratization of access to basic services, because for me — and again, heavily influenced by my parents, and I'm an only child, so I got all the attention [laughs] at the dinner table and it was really about equal opportunity for all. And the sense that, you know, whether it's a country or it's a company or a government, it's always a team play. And if it's a team play, then that means that everybody is important in it. And I think this is very important because there was a huge dislike of elitism in

my house and a very openness to conversation and debate. And in all my cousins and my family that has manifested in the fields in which we've gone into. And I was the only one that went into technology, which kind of horrified my family because they didn't know what I was thinking at that time. And now they totally understand. But that that pervades everything I do to this day. And my father went on to be, you know, retire at the top of the civil service, became federal ombudsman. And my mother and her perspective on life, really informed by her you know, deep study of literature and poetry, also gave me this idea of the marriage of engineering and humanities. That in fact, both are the same and that this is a false division between. Because they both enjoyed these things, and at our dinner conversations, we moved seamlessly between them. I think this is important.

ABDUL-REHMAN MALIK:
What do you think worried them or horrified about their daughter going into technology and engineering?

AYESHA KHANNA:
You know, they never — nobody in my family was a computer scientist and nobody in my family had done that. They'd all done economics and banking or law. And I think they thought I didn't — it was so new to them. And there was this sense at that time 20 years ago that it was a back-office job. Not so much my parents, but my extended family. You know, parents are always supportive, but they were like, "Why is she doing this? You sent her to Harvard and now she's in a back-office job like that?" And they had no sense of what I saw, which was technology as not just coding a set of requirements, but as a creative endeavour that can not only move a company, but the human spirit, and its potential to achieve its desires.

ABDUL-REHMAN MALIK:
I want to pick up that thread in just a moment. But take us back to this journey from Pakistan to Harvard. How was the experience of education abroad?

AYESHA KHANNA:
It was amazing. I applied and I was, you know, by the grace of God, lucky enough to get in. And it's kind of random, let's be honest. You know, so I was just lucky. And it opened my eyes because at Harvard, it wasn't about any one particular thing, but it taught me how to think. If you are constantly learning how to think, then everything is part of that journey. And, you know, yeah, I'll study quantum computing tomorrow. It doesn't freak me out. I may not be the best today, but I'll find the right person and we'll do it together. And if it doesn't work, it doesn't work.

ABDUL-REHMAN MALIK VOICEOVER:
Ayesha's CV reads like one career highlight after another. After Harvard, she worked on Wall Street, before co-founding the Hybrid Reality Institute — a research network that focused on the co-evolution of humans and technology. She held a variety of other high-profile technology jobs and got a PhD in Information Systems from the London School of Economics. She and her family ended up settling in Singapore, which is where she really started to grasp the potential of data to transform communities. But when she started her own company ADDO AI a few years ago, it was to her native Pakistan that she turned to find talent.

AYESHA KHANNA:
I had decided that when I came to Singapore, I saw the explosion of data and the potential of data to help Asia continue to catch up very quickly and leapfrog over Western companies. But the talent gap was missing. And I knew there's one place I can always find good talent, and that's Pakistan. So I went to Lahore and I said, "please, you know, I want to start an AI

company. can you tell me who the top data scientist in the country is?" And my friend Omar [Saifi] said, "Well, you know, you should speak to Dr. Faisal." And I met Faisal, my husband and I met him. And we decided to set this company up that now since has been advising some of the largest companies in Asia, and now in the U.S., on how to have an AI strategy and use artificial intelligence to build kind of more innovative and more productive products and services. And I continue to have the majority of my team in Pakistan. They're all younger than me. They're all smarter than me. They're all more creative than me. Every day they come to work, they're full of ideas. I cannot tell you the talent in that country is impressive but also they're good people to work with. It's a great team. And please don't try to hire my team because people are trying to poach them. But there are two hundred and six million people there, and they're all awesome [laughs].

KELLY FRANCES VOICEOVER:

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ABDUL-REHMAN MALIK VOICEOVER:
ADDO AI uses artificial intelligence to help solve all kinds of problems. Many of their projects have been based around finance, aiming to make insurance, e-commerce, and microloans more accessible. They've also helped to solve staffing issues at a hospital network and optimized customer-service response for a large telecommunications company, just to name a few. But I wanted to get Ayesha's thoughts on the potential dangers of AI.

ABDUL-REHMAN MALIK:
Ayesha, when people think of artificial intelligence, I think you and I both know that there is some fear around it. I you know, when I turn off the TV and I and I check out what are the latest series on television, there's inevitably going to be that show that's going to tell me about an AI system gone wrong, an AI system that's a that's a threat to humanity. "The bots will rule the world." Break it down for us, Ayesha. How should we be thinking about artificial intelligence?

AYESHA KHANNA:
So the best way to think about any technology — and AI is a transformative technology and we'll have more such technologies — is to think of it as having two sides. One is it's hugely beneficial if it gets into the right hands; and the other is it's hugely detrimental if we allow it to be manipulated by people whose intents are evil. So, for example, if you're looking at automation, what you're doing is you're looking at how to automate certain processes so that you have the ability to do things as a business or even as a human being faster and also more efficiently. For example, if you're an insurance company —you know, pregnant women, their biggest concern is pre-eclampsia. And they're stressed and they're calling and they're asking if they're covered. The AI can tell them that, you know, a thousand times faster than a call service agent who's scrambling to understand even what that means. So that is a good use of AI, it's automation, it is — first of all, it's given the call-centre services agents more time to then address the emotional needs of the customer, to reassure her, to give her options, all supported by the AI

that's able to go into thousands of pages of contractual legal documents and tell and assist it. On the other hand, you know, there is the potential for manipulation bias by the AI as well, where the AI is taking this information of this woman and because there's no good data governance or data privacy laws, maybe selling it to somebody else so that she comes to you to get a job later on, but we know she had this condition and that is used against her. Or that it is used to send to sell her, you know, vitamins that she doesn't really need, because we know she's concerned about it. Or it was listening to her voice tone and we know you can — you know, you can identify your mood and your anxiety by looking at 18 features of your voice. Now, as developers of AI, we want to look at both sides and have this balanced view instead of an emotional knee-jerk. "I love it." "I hate it." "I love it." "I hate it." That's not productive. And that is really the key. So first of all, that's the most important thing.

Second, it means that you need to think about three things that the AI can do. So once you know it can do both, it can go either way. What can it do? Well, it can automate processes I just talked about it. It can analyze huge amounts of data and do predictive analytics and forecasting the way human teams can never do. It can personalize your experience. And the final thing that people think about is, "OK, we have the right country — like Singapore has good governance of AI. We'll build our products here, but now will it take away my job?" So that's the other concern people have. And the fact is, it will automate tasks. It will take away some of your tasks. But if you are open to it, then it will enable you to grow in your career. And that means you have to do some work. You have to pivot, re-pivot, yourself as someone who can work with AI instead of being displaced by AI. And I think that that's what I always give the example. In Korea, they're always looking for English language teachers for kids, and, you know, if you always go to the same countries, Australia, England, New Zealand, they're lovely, but some of them are just dialing it in. And if you're going to be the kind of teacher who dials it in, they're starting to replace them with robots. But if you're the kind of teacher who's empathetic and the robot is giving the lecture, but you are going to each student, you're spending time with them, you're understanding them, you're motivating them, you're pushing them — no robot can do that right now. And that is a strategy that we need to adopt by working in partnership with AI, not waiting for it to disrupt us.

ABDUL-REHMAN MALIK:
You're processing and dealing with some of these ethical questions that you talked about on a daily basis, and that it must be an incredible burden and responsibility, particularly on, you know, a firm committed to innovation like yourself. There must be a process where all of you are talking this through all the time and keeping it on the table.

AYESHA KHANNA:
Yes, and honestly, nobody really does it correctly, including us. What we do is, there's some things that are very obvious. I had been approached by a very well-known psychologist to make an app for people in which we were advising them certain things to do as we noticed — through their Fitbit and wearables, knowing what they were doing — and then advising them to have some breathing techniques, *et cetera*, but then very soon afterward, advising them to go see a psychologist. It made me very uncomfortable. And so I said, "We will not do that." And later on, I found out that that psychologist used to, actually had a reputation only in the inner circle of psychologists that he would give drugs where they were not needed. So, you see, it's very scary for us to be involved. Another thing that I never get because of my own fear of not getting it right is children, anything related to children. I'd rather they did not interact with AI.

But then you come to things that are not so obvious, right? You have personalized journeys for people and you're selling them e-commerce products. And we are getting into a product as well

where we will be giving e-commerce loans at checkout. Now, how do you make sure that person is OK? At one level they need it, they should have access to it. On the other hand, you don't want to prod reckless spending. So my team and I are talking about this. We are least having the discussion about this and I hope we can put it in somehow. Yes, we lose some money, but if I put my foot down, then I think the investors would just have to go along with it. And I think that's the kind of difficult decisions and conversations not everybody's having. And they're not easy. I question myself all the time, you know? "Am I doing something wrong?" And I think we need to do more of that. And it comes in education. So in Singapore, we have guidelines on AI ethics. And ethics is not just an emotional thing. It's done very systematically through data governance, through algorithmic governance, and through policy.

ABDUL-REHMAN MALIK VOICEOVER:
Ayesha believes that when it comes to getting tech right, the world should be looking to Singapore. It's one of the main reasons she founded her company there. She also serves on a government board whose purpose is to develop and regulate the nation's booming tech sector. Though she works on projects around the world, she points to Singapore as a model for other cities that want to embrace smart technology.

AYESHA KHANNA
So Singapore is known as the smartest city in the world. But, you know, too often that's just considered high-tech. And about six years ago, Prime Minister Lee said, "We want to be a smart nation where the human spirit thrives."

CLIP: LEE HSIEN LOONG
We should aim to be an outstanding city in the world, an outstanding place for people to live, work, and play in, where the human spirit flourishes.

AYESHA KHANNA
And I think that that is an incredible way to describe what has traditionally been known as a high-tech concept. He did not say we want to be a smart nation with lots of technology. He said it's all about where the human spirit thrives and it's a meaningful place for people to live, where they can meaningfully conduct their lives and work. Now, how that translates in Singapore is that there is technology everywhere. But when you walk in it, it's kind of invisible. So you have new townships coming in and they're really at the cutting edge, where you would have drone taxis, for example, where you would have driverless cars. But when you walk in them, they're very green. Where the buildings are made, but they're mostly, largely prefabricated using 3-D printing, where the smart homes are completely outfitted with sensors and cameras so that they're safe and that they have the 5G connectivity for you to easily have your VR headsets and do your work.

And the other side of a smart city is that when you were speaking and data is being collected, is it being protected? Is it being taken care of? Is the government somebody that I trust to take that technology and make sure that it is not being used against me? And so, because the whole premise of the smart city is one that is in favour of the citizen, not in favour of the technological-economic development of the country, then all policies are geared towards that. And that's the kind of city I want to live in. There'll be many rich cities in the world with lots of cool tech, but you don't want to live in them necessarily. You want to live in a place that respects you as a citizen. And then the whole system, you're the gravitational force and all of the smart city revolves around you and your needs in a way that that holds you in in highest place. And I think Singapore does that, basically.

ABDUL-REHMAN MALIK:
Ayesha, how does faith and spirituality inform your work both professionally and personally?

AYESHA KHANNA:
I think it's become very important to me now. Of course, I grew up in a Muslim country — it was all around me. And then I spent a lot of years in America, almost 20 years. And I love America. It's a fantastic country. Taught me so much. But I was also younger, you know, so I was trying different things and busy on Wall Street. And now that I'm in Singapore with my kids, I'm more settled. Now saying my prayers, being part of the community has become becoming more and more important. Now, as a Muslim living in Singapore, I feel so welcome. You know, Hari Raya, our Eid, is celebrated, is a national holiday. I celebrate Deepavali I celebrate Christmas. My kids dress up in, you know, other religious and cultural costumes. We eat each other's food. We hang out together. We are all one country. You know, in my neighbourhood there's a mosque, a church, and a temple. And, you know, it's triple the blessings, basically, and it's so wonderful. And we pass by every day and we are so happy, basically. So I think that is the way to live. As I move around Singapore, I think that's one of the most wonderful things about it. As wonderful as all the high-tech opportunities, it gives me maybe even more, to be honest.

ABDUL-REHMAN MALIK:
Just before we wrap up Ayesha, we've been talking a lot about technology, and we've been talking a lot about its possibilities and some of its pitfalls and its challenges, but also the way in which it can change our lives for the better. But I do think to myself that the most enduring technology that we live with every day is the is the human soul. I'd like to know from a tech whiz, if the most enduring technology is the human soul, what's the upgrade that we need to be better human beings?

AYESHA KHANNA:
The whole concept of prayer in all religions is that, is to put a distance between you and the noise around you. How do we find ourselves in our education, in in our health, everywhere, in this rapidly evolving beast of an AI which has so much information on us and is constantly stimulating us? I think the best way is to take some space, and the soul needs that to just re-anchor itself. And that means you shut off your devices and you spend some time alone and, you know, people call it meditation, people call it prayer, people call it whatever. It doesn't matter. And I love spending time in the East Coast Park, in the trees. It makes me happy, frankly. I think those things are very nurturing for me and have been in this time. Every day you try to find that balance. And know, balance is a dynamic state. And that has nothing to do with technology. If anything, one needs to get away from technology for a bit to make that happen. So I think that that's what's important.

ABDUL-REHMAN MALIK:
I'm going to quote you on that one Ayesha. Dr. Ayesha Khanna, what does this being human mean to you?

AYESHA KHANNA:
Being human means being open to life and accepting what it brings. But also when you can change it and improve and learn from who is coming or what is coming your way, you can make your life richer. But I think that for me, being human is walking the path with openness and submission.

ABDUL-REHMAN MALIK:

Ayesha, it's been such a pleasure speaking to you. Thank you so much for joining us on *This Being Human*.

AYESHA KHANNA:
Thank you so much for having me. I'm so grateful that you had me on this podcast.

ABDUL-REHMAN MALIK VOICEOVER:
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