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Interview with Dr. Karthik Sindhya: entrepreneurship and FINNOPT

On today's episode of AamukahvIT, we are joined by Dr. Karthik Sindhya, one of the founders of FINNOPT. We will talk about his journey from India to Jyväskylä, entrepreneurship and the beginnings of FINNOPT.

Emma: Welcome back to AamukahvIT podcast. Today we're joined with Karthik and we're talking about this journey, entrepreneurship and FINNOPT.

Intro: AamukahvIT IT-tiedekunnassa, rakkaudella Mattilanniemestä.

Essi: Hi Karthik and thank you so much for coming here to AamukahvIT podcast with us. Would you like to introduce yourself and tell us a little bit about yourself?

Karthik: Yeah, hi, so thanks for having me and I'm Karthik Sindhya. I actually have a background in engineering from India, where I was actually part of a PhD program and then I got a chance to visit Jyväskylä to the faculty of IT and then I continue to do my PhD in faculty here, so it's it's kind of interesting. It was a chance encounter the country which I ended up staying. It was it was supposed to be a one-year visit, but then I ended up staying till now. So that's how I came to Finland.

And I finished my PhD in IT faculty, precisely with Professor Kaisa Miettinen, and then I worked as a postdoc for several years. And then I started my own company with my colleagues called FINNOPT. FINNOPT still exists, but recently we were also sold our company to a bigger company in Helsinki, calledSilo AI.

Emma: Have you always thought that you would like to work in the IT field, or was it just by coincidence?

Karthik: It's it's a coincidence, but IT is is not. These days is not just for like computer specialist, but you respect you of whatever you study, anything in this university. IT becomes part of you, because it's, it's, like books now, so it's become a medium. So you have to embrace it. So if it tells you to boost your productivity, it helps you to present yourself in new ways and and it also gives you new opportunities.

And me myself being an engineer I was not about IT, but that's something which I came to me as one of the projects and then I started to develop interest in some of the methodologies and that's how I ended up doing more of artificial intelligence now.

Essi: Were there any significant moments during your studies that you feel that particular had an impact on your future, but would you say that it was that visit to you asked during the PhD, or those projects that you were doing where you kind of got introduced to IT and eventually artificial intelligence? Or other moments that you feel like we're particularly significant to you?

Karthik: I think it's probably through the projects. It's my inherent aptitude of being

different. So what happened was loading my projects during, my masters. This is, I think that was the time do everybody want to do the same traditional things, which is usually done in your field. But I wanted to do something different which others didn't want to do, so that I would explore new areas. So that's how I thought I would apply my area of studies towards IT and then I enjoyed it. That ok this is what I want to do and then I started to do more stuff in that field.

Essi: You said that you wanted to do something different by exploring ideas. Was it difficult to take that step and kind of think outside of the box and do you think it's a little bit differently than others? Like did you have any doubts or where you feeling confident in your decisions?

Karthik: Well, yeah I did not but I'm thinking too much into the future when you are in the master's degree or bachelor's degree. I don't know. I was not that mature enough to think too much in the future, but I just wanted to do something which I enjoyed, and I just want it to be a little bit different than try some other stuff rather than the same things which we do in our area of studies, and so that's what actually mattered, and it was my luck that it planned out for the good decision.

Emma: How did you choose to do your phd, especially in University of Jyväskylä? Was you Jyväskylä somewhere you wanted to go? Or in Finland in general? Or...?

Karthik: Yeah, that's one more interesting. The problem, the funny thing was that I was not even aware of there was a country called Finland. So, for like many of many people in India I thought Nokia was in from Japan. So, I had no idea, but it was from Finland, and I was actually told from the university my mind supervisors that there's this opportunity to visit Finland and that's when I came to know that, ok, there is something called Finland.

And then it's because of our professors who are quite renown, and my professors there had a full search collaboration with Kaisa Miettinen, and that's how I came to Jyväskylä. So that's, it's kind of a, everything happened by chance. But it's mainly because the Finland is a research-oriented country and you do a lot of research here and there's a lot of collaboration between different countries because there is this leads to exchange of new ideas for Finnish society and this attitude of the country is something which brought me here.

Emma: What has been your favorite thing about University of Jyväskylä?

Karthik: One of the main things to study, research and also work here is this the share amount of freedom we have in choosing what we want to do and the opportunities we have had within the university. I was actually. Well, one of the persons who used quite a lot of this mobility programs which the university has in which you could visit different countries to gather more information and research joint research projects with them. And which is which is a very good initiative within the university.

Actually, even universities like MIT and Stanford are impedial. Nobody has such a program, so when I used to talk with those researchers there in top 10 universities around the world. They would envy me because I have had this kind of mobility ground to visit anywhere in the world for one month and have new research, yes. I think this is this kind of initiatives and forward-looking things from the university and also less teaching load on the researchers and doing more in the area of research is also a very important thing, which the university presents us. So, I really love these things and also quite nice informal, casual get

togethers within the faculty. Quite a lot of stuff which help me, and the most important thing is the nature around which helps you to relax and focus.

Coffee stirring noise

Essi: Let's talk about a FINNOPT little bit. Congratulations, first of all, Silo AI has acquired fee, not and there must be a great thing for you guys. You must be feeling excited about that.

Karthik: FINNOPT is something, which, we do quite a lot of projects with Business Finland and Academia Finland within the university. I think the main idea of FINNOPT came, was actually during sauna party with the faculty. So we were doing quite a lot with quite a lot of companies, and I was actually working myself in those projects. And the idea of came that there is this kind of a funding which exists, and I think this was a pikkujoulu party, so during sauna was the discussion going on in 2015? Probably something around that time.

There is this funding where you can apply and you can see the potential impact of your research and you if it works out, you can even start a company. So that actually gave us this idea that ok there is this funding and then because of my previous contacts and my colleagues, we in one moth, we just wrote a research plan. I mean the project plan for that and we submitted to the Business Finland and in three months we had around half a million euros to start with to spend in one year. To kind of get an idea of what is the potential of the research and the I think so, which we do in the university in mind.

And that's actually again one of the first, that doesn't exist anywhere. I don't think it exists anywhere in the world where the researchers get this much of open pass to go and explore and the money is given. And so that that particular project was the turning point and that project name was FINNOPT so that actually became FINNOPT after one year.

Emma: I was just wondering that to start up a company or startup how clear the vision needs to be?

Karthik: Yeah, so there there exists two different worlds. One is the university world and one is the corporate world. So many times, their visions don't really match. So, what we think the companies would be doing and what is important and what companies thing or things that are important. So many times, there is a mismatch, and the same thing was true for us. We wanted to do something, and we actually started the company thinking we would do something like this, but then it quickly changed.

Within one year, based on the opportunities we were seeing. So, we had to change directly from the product company to the consulting company, technology consulting company. Yeah, so there was a vision, but we want a giant enough to adapt based on the situations and the opportunities.

Essi: You said that FINNOPT started from a project that was actually called FINNOPT. What is FINNOPT and what do you actually do? What kind of services or products do you offer?

Karthik: Yeah, so FINNOPT is actually, well, FINNOPT means Finland and optimization. So that's how we made this work. So we actually wanted to provide optimization software to companies to make better decisions, and that was mainly our research in the university and we wanted to offer this as a product because within the university we had wrote software

codes developing this idea.

And then we had some ideas about how this could be used, and we had projects within the within the project given to us from Kone... And we made proof of concepts for these companies and then at the end of the project was very happy with the result. And then they actually gave us a project, hired project within the company. So, we were actually quite privileged enough so that we had at the end of the project we had hired project which needed a company to be set up, so many people have this kind of a problem. Usually that ok at the end of the project we need to decide whether you start a company or you don't start a company, but for us we had a client waiting and we just had to start a company.

And what we do, what we did was scheduling elevators under different objectives for Kone. So, we have, or things we have done has been working with Kone.

Emma: You mentioned that you already had a client waiting in the beginning of creating the company, but did you have any doubts related to entrepreneurship or creating a company?

Karthik: No, so that is that is something exactly which is a question that is there under pressure within you. So you only think of entrepreneurship if you had an entrepreneurship bug within you. So somehow to do something different and to do on your own and somehow that. Many researchers, they're already quite independent, so it's already they are kind of entrepreneurs when you're doing research in the university. You will choose what you want to do, and you want to do it this way, and you think this.

And for us, of course, we had five people within the company who started, but we dare to take the risk was only with two of us, me and my colleague Markus Hartikainen. So, we quit the university and then we started full-time within the company. But others had other day jobs, so they were silent partners.

Yeah, so I think entrepreneurship was what something within us. We have never questioned that when we've had an opportunity.

Essi: How was the first few years of FINNOPT and was made a smooth ride so to speak? Or did you run into any problems? Well, you had quite a big client in the very beginning of course.

Karthik: Yeah, we had some problems. So for example when we started. We wanted to sell this optimization product, but in one year we only sold 1 license to a Chinese research organization and that was our client who had actually purchased from us and couple of others, but we spent quite a lot of money developing it, but we had but fortunately we had KONE which whom we were providing tailor made services like ok, we had to develop from scratch and also research some topic. This is how we would do it. So then it that actually generated revenue to compensate.

And the idea and the most difficult for the thing, was that OK should be continue to trust on the software and keep on developing it? Or should we shut down the product info for technology consulting or something. I think that was the main decision, but that decision I think we took based on understanding how the product was performing and how we realized the request world from the client. So that helped us to make that decision of switching from being a technology consulting company. And of course, when we ran the company when we were two of us, we had to work on the projects and then we had to do

everything right from accounting to everything. So sometimes we didn't have projects, but then we could compensate by.

We are so small that we didn't have to work all 365 days to our income for 365 days, so in that way we compensated because we provided quite high value consultation which was premium to quite many companies. Every year we would basically think that ok we need. We would go back up next year. But somehow, we kept on surviving, and we kept on getting bigger and bigger projects. So yeah, it's every year is a struggle, but that's how entrepreneur is that you're never scared of bankruptcy so you always keep on working so that you will make it.

Emma: How about now and in the future? Can you tell us a little bit about what you're doing now and in the future with Silo AI?

Karthik: Yeah, last two weeks, two months back, we were acquired. The CEO of Silo AI approached us and he asked us, acquired our company. So that because for them Jyväskylä is also the place where they want to grow their company because of the companies around and we provided them a nice startup kind of thing that we already had a ground here and the new people around so, and we had the necessary expertise which they value, and that's how we got acquired from Silo and we have been working there for two months.

But in a way artificial intelligence is something which is growing in need around the world, and we're quite glad that we are part of the biggest AI lab in Nordics. We have a big team and I think the journey has been quite nice. We're getting new projects and before we're doing things which we couldn't do as a small company, so that's one of the important things which we are doing. And of course, once you do entrepreneurship, you cannot, you always want to be entrepreneur all your time, so who knows what the future holds. We may try something new.

Essi: Yeah, it must be exciting now that you're part of this bigger company. Like you said that now you can do things that were not necessarily a possibility when you were smaller company. But do you still feel like an entrepreneur, because you talk about a lot of having this spirit in you?

Karthik: At least within the company side, we have been quite independent. We have been proposing things and doing things and we hopefully we will be that way so. So that is something which we are still exploring. We're just two months old within the company, but until now, all good.

Coffee stirring noise

Essi: What's the key to your success or to the growth of your company?

Karthik: The key is basically to be a child and adapt to how the how the opportunities come up with you and the most important thing is to be truthful and do the best you can in whatever we do. So basically, what we did was that we did not approach Silo, in fact it happened other way. It means that we kept on doing good things and our name and ideas spread through the Finnish system and then somebody noticed us and they wanted to acquire us. And I think Finland is a nice place because it's a small society and it's very easy to spoil your name and it's a pretty easy to get noticed, so both extremes are possible. So, in that way it's necessary to do keep on doing good things and be truthful. So, I think your name spreads fast.

Emma: Maybe next we can move to the future of IT. You mentioned that it's important to react what happens around you and adapt to it. How do you see the future of IT and tech industry?

Karthik: Yeah, I can't comment on the entire IT industry as such, but at least the future has been growing certain areas of artificial intelligence is something and also more and more development on technologies with respect to cloud environments and all this kind of technologies. And these are some things which may really there is a need. For example, even now my company Silo, now, so we have need for data engineers, cloud engineers and all sorts of this technologies. And artificial intelligence experts.

So, this these things have been growing and as they see that there are more and more challenges which come up once more and more technology when it is developed. Both on the science side and also on the implementation side, so that ultimately somebody gets to use it in a reliable and stable way.

Essi: Is there anything that you are particularly excited about at the moment?

Karthik: Yeah, well I, I'm personally quite interested in all the automation ideas which come up with the with the introduction of artificial intelligence and especially for me personally, self-driving cars and use of this autonomous driving is kind of very interesting and that is something that I follow quite closely.

Emma: Let's move back to entrepreneurship and what kind of advice would you give to someone who is interested in starting their own company, or startup?

Karthik: Yeah, actually it's. I kept on. I keep on getting quite many questions and also ideas from within the university. I have this idea I want to do this, so I think it's I guess as ideas if we if we don't take it forward or somebody has to implement them, and I think if somebody wants, has an idea and I think the most important thing is to ask if you really have that attitude and person to take risk. I think Finland provides enough of security with respect to social security, and if you have it then there are enough of these opportunities like funding which is provided by the university to even look into it. I think the first important thing is to go for that tutli-funding if you are in the university, I think it gives you the first taste whether you are at least fit for it.

Because you get good questions from Business Finland to answer and also it's a first level to test yourself and I think with tutli-funding you pretty much know whether you are built for the premiership or not.

Essi: I, I think often the big well, I think maybe people have that two doubts, that is their idea good enough, and I think it's very connected to the fear of failure or like "What if?, What if everything fails and."

Karthik: But I think that no idea is good to start with. So, because it ideas aren't like. It's like a baby, so you have to make it grow. So, it can grow, so it's like a baby you keep on noticing it, giving it guidance and one day it will grow to something good or sometimes it will, just it's a risk. It's like being a parent so. And it's how you take the baby towards the endpoint and there is always a risk in it.

Essi: Is there anything else that you would like to say?

Karthik: I believe that the there are enough opportunities within the university system for you to grow to be an entrepreneur. I think there is also this Yritystehdas also available there somewhere, I was visiting sometimes. And there are a lot of people who are quite openly available for you to help. If there is an idea you should, you can always find an opportunity within the university system, and you just have to take the step.

I think that's the more important as a foreigner is to, is to basically find your reliable Finnish friend with whom you work. Because I did not know everything but, my colleague filled it with me and then we kind of build it up, so. It's sometimes it would be more difficult and very big thing if you have to do it all by yourself, but you just have to make friends and find some Finnish friends would like to take journey with. Without them, I would not have succeeded, and I think this kind of synergy in what we bring together as a multinational team actually helped us quite a bit.

Essi: Thank you so much.

Karthik: Thank you very much.

Coffee stirring noise

Essi: Thank you again Karthik for joining us today. And thank you listeners for tuning in. If you have any thoughts on this topic, you can find us on Instagram @ jyu.it or you can e-mail us on itcrew(at)jyu.fi. Until next time, bye!