Design Thinking
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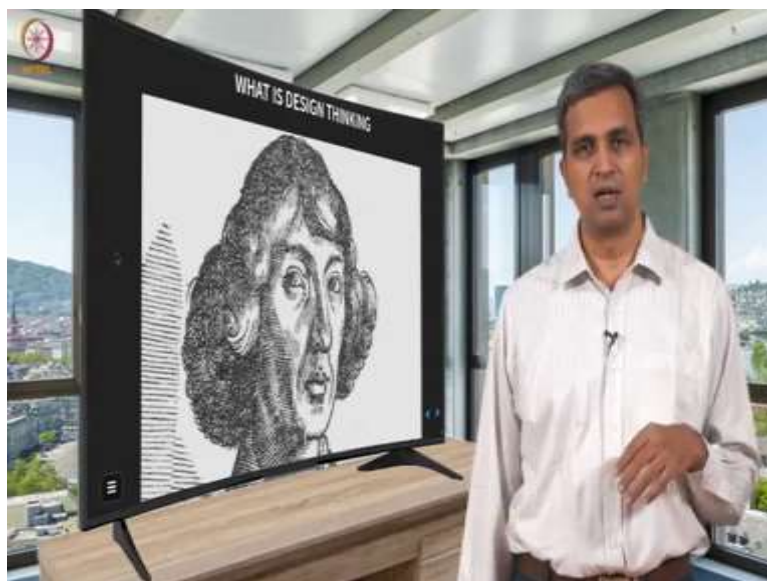**Intro to Design Thinking – Part 01**

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Hello and welcome to the design thinking course offered on NPTEL, my name is Bala Ramadurai and I am a professor and consultant, the other facilitator is Professor Ashwin Mahalingam, who is also going to be there as part of the teaching duo that we have for this class.

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First of all what is design thinking, so just take a minute to guess who this person on the screen is, not me. The one on the screen now. Okay, you can even pause the video if you want. This is a Polish astronomer by the name Nicolas Copernicus, his main contribution as seen in the European continent was that he proved that the centre of the universe is not Earth as it was thought at the time in mediaeval Europe, but is actually the Sun, the solar system centre as we know it, but he proved that it is Earth is not the centre, so, but in design thinking, we do the

opposite of what Copernicus did in his entire life, we are going to put the centre back on us and that is what is sometimes referred to as human centred design.

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So where we start is the human, the human is the first place where we start thinking about how can we help this person, first the history of design thinking is that it started off as a discipline may be in the 60s, ideo.com, this IDEO, they were the ones who made it popular and it caught on to several, so we are going to be using elements of this, I have suggested some references, also I have given some references, I have also given some videos, you can check them out any time you want during this course.

So we are going to use the some of the material from IDEO, some materials from other references that are listed as well. The most important part of this type of thinking is that the human is right at the centre of whatever we do here.

I have two objectives as part of this course, very basic objectives because this is a beginner course, we do not expect you to know anything prior to this course, the first one will be that you are able to recall the faces and the step that are involved in this design thinking process, yes, it is a process of thinking you setting a stage by stage, step-by-step process of thinking, second would be if you can, if I scramble all these steps and faces and give it to you and you should be able to do pick each one and say this one is the first phase, this is the second phase and so on and so forth and be able to do this, we will be very happy if you can demonstrate to us through the test and classes that we conduct in this, as part of this course, if you were able to demonstrate we will be very happy and that is design thinking for you, so the awareness is built. Okay.

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I wish to set some kind of background before I start the course, some basics that I want to cover is that when ideas are implemented not as a thought, not as a something you just write down, but something that is implemented, leads to a product or a service, a product which somebody uses and finds it useful or a service, not a tangible one, but stands for like my course, for example is considered a service because you do not see a product that you can touch and feel. Usually the definition of a product is quite loose, but I think of it as something that you can hold, touch and feel is probably a product and a services is something that is offered to somebody.

So if your ideas can lead to one of these, then usually this is the process of implementation, in it becoming a product or a service. Okay, so this is a basics. I am not, this is a platform on which way we build, so we are not going to cover anything on this.

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Now, how I split this design thinking process is into four steps, like I said before, like I remarked before, we start with the human, so people understanding people is part and parcel of our first step and how do I find out what is going on in another human being, not in myself, but in some other human being is through the process of empathy. Okay.

What it is we will cover later in the course as well, once you know what people are going through, you find out, figure it out, you empathise, you feel it, you understand it then do not stop there. But go into the depth of it and find out why is it that somebody is going through this experience, can I find out what is, you know, simmering under that, we use the step of problem analysis, the stage of problem we and our method is to analyse and figure it out.

So in analysis stage we actually figure out what is going on underneath why is the customer going through this, then after that we move on to the third stage, which is, now that we figured out what is the problem we have to solve, we have to fix it, we have to think of ways to mitigate it, reduce it, whatever could be the situation, so this involves the process of creating something, it could be creating absolutely new stuff or taking, you know, existing stuff and putting it all together in a sort of novel combinations, so that the problem that we are addressed is solved. Okay.

The last and final the most important according to me is to put it all together, make a tight package of it and call it a concept, make it a concept, now you have, it is not enough if you think of it, and you keep it in with you, but actually give it to somebody and test it. Hopefully the one that you started out with empathising and then you take it back and test it with them and to see if it actually helps them in any way, or is it increasing you know more problems for them! You're giving more problems for them! Then you need to go back to the drawing board and say, hey, you know what! They are actually going through more problems by using my ideas. Okay.

So this is the basic methodology of using 4 steps, start with people, then the problem, solution and a concept, how you do is through empathy, analysis, creation and testing, you can make it and test it, so that is what is the basic of designing thinking.