Design Thinking
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Analyse – Part 02
Conflict of Interest

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Hello and welcome back. This module is a interesting module, it's a continuation after to answer the question what after 5 whys. I have done my multi-why analysis, it is reasonable I have checked it with customers, I have checked it with data, I have checked it and I think the chain of reasoning is valid from one why to the other, it works. So, now what, is a big question, should I straightaway jump into a solution saying I will solve it right now with any solution.

The answer is yes and no. So I have heard of this ad age, this saying, this maxim. So to speak is that a story without a conflict is a boring thing. Right. So if there is no conflict, there is no bad guy or bad situation, the story is pretty boring.

I woke up in the morning, I brush my teeth, I had my breakfast, I went to work, I came back from work and I had lunch in between, I had dinner after I came back from work and I went to bed. This is a straightforward story with no conflict, nothing going on. So conflict is essential to a story as much as it is to our design thinking module that we are looking at, the analysis of the Analyse module. So the first one is we reasoned out why a certain thing happening? Why we ran 4 or 5 times? You can go as many as you want, but we can stop at a level where we are comfortable, we have a skill set, that you can use to solve the problem there.

Usually what happens like I am using a 'but', so that's what comes in the way, it gets in the way and that could be the challenge that you have to overcome. So no solution is perfect. So any solution that you think of implement or even are prototyping to put together will have some kind of flaw, some kind of challenge and that is the conflict even if you don't have a solution. The situation per se is also subjected to such a conflict. We are calling it the conflict

of interest. I have heard of the creators of South Park, the animated series an adult animated series, the creators came up with a very very easy simple concept is can I replace all the "and" that they use in their story in their structure with a "but" and it made it pretty interesting. The whole read up, so this is the yes-but stage as also used in I have heard it being used in the Disney creative methodology, they use a yes-but to create a conflict, create doubt, create challenges so that you can solve it, the protagonist in stories can solve it and become the eventual victors over the bad guys or eventually they overcome the obstacles which is the challenge, the conflict and are happy or whatever.

So that's something that are true with stories, is true with our design thinking module as well. So I am calling it the conflict of interest because lots of times the conflict that we see is between 2 humans, human actors or between a human and a thing, an object, an animal, I don't know. So it's usually it's one of these 2. The conflict lies between. So that's why party A wants something party B want something else, then we have a conflict, if they want the same thing there is no conflict there and they are happy okay but if they want different things then it's a conflict. Like we saw in the earlier case when I was explaining the 5 whys concept is the customer, person was getting his vehicle serviced wanted the service centre to be close to his home whereas the person who was servicing the vehicle, the company they wouldn't have that. That would mean spending a lot of money and putting it all over the city, and that's not going to be possible.

So now we are looking at a conflict. If he had the resources and he built lots of service centre there is no conflict it's an easy solution for him. Spend the money, put up the service centres, so that would be. But again there is a catch there, now I will have to staff them and I will have to train them so these are challenges for this entrepreneurs. So, no solution is actually perfect that's what we find out. So our job as design thinkers is to unearth these conflicts of interest and that's where the interesting stuff is. You can solve them and you can give the world your beautiful solutions and of course you will find more flaws with that and provide more beautiful solution this is a cycle, the karmic cycle so to speak it keeps going.

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So we will start with very very simple example, an interesting one, an example from Alexandra Dumas book called ‘Three Musketeers’ which is so many times they’ve taken movies. If you look at the screen right now you can see 3 figures, these are Lego figures of these 3 people from the Three Musketeers. The one on your left is my main character well not in the story but in my story he is the main character called Porthos, the other 2 guys are Athos and Aramis totally they make the Three Musketeers. So, Porthos your bearded guy he was a great swordsman, he was fiercely dedicated to the Three Musketeers, a very loyal guy, often seen as the comic relief among these 3, the other 2 were probably serious Although the Lego block actually shows him to be the most serious but actually he is the funniest guy. I love him.

He was also a quirky guy he had funny characteristics about him, one of the most funny ones that is important for our story that I am going to describe is that he didn’t like to be touched, physically touched. If somebody touched him, off came his sword and off came that person’s head.That’s not an interesting proposition for the person who is touching him, a conflict of interest if you will.Ok. So imagine, take a moment and imagine if you are his tailor and by the way another characteristic that Porthos had was that he loved fashionable clothes.

So if you are his tailor and you have to get his clothes stitched for him, you cannot touch him and if you go by how tailors actually measure for a person like Porthos who's well-built and burly you are going to need a measuring tape and you are going to have to touch him to measure his dimensions, so that you can get his fashionable clothes ready. Okay. So in this if you are the tailor I only pity you, if you are the tailor, I really pity you because you are going to have a very uncomfortable situation in your hands. So let's frame it as a conflict of interest between these 2 parties. Party 1 Porthos who wants fashionable clothes stitched. Party 2 is you, the tailor who has to stitch his clothes and has to get him measured without touching him. Okay.

Let's look at how the conflict looks like in graphical format. Okay.

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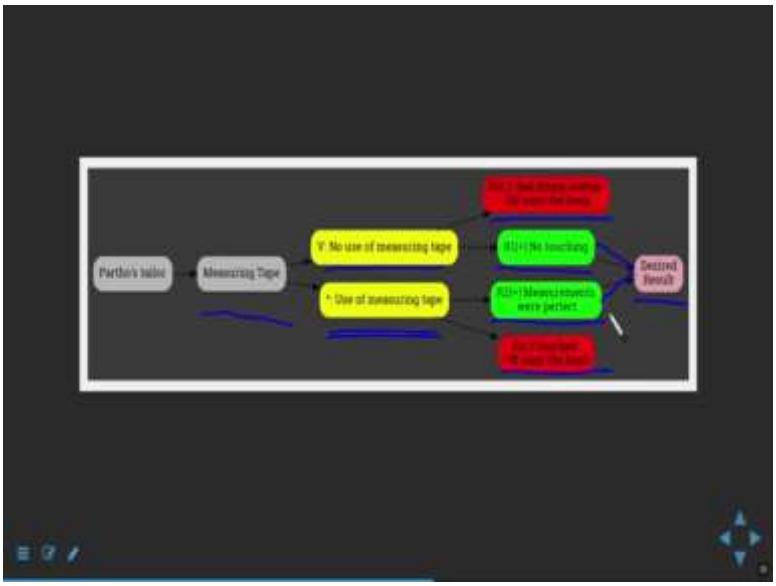

You are Porthos's tailor and you have a measuring tape at your disposal. Okay. So this is your main instrument of choice, so to speak your measuring tape. So you have 2 choices you can either use your measuring tape and take your measurements or don't use your measuring tape and take your measurements.

How you can eye ball the guy? Oh! You are an experienced tailor I know, I know. You have years of experience measuring you know people up. So you can size him up just by looking at this burly Swash buckling swordsman. You can probably eyeball and write down his measurements. Okay. Now what happens is the following - if you don't use the measuring tape, let's take that case for arguments sake. Let's say you don't use a measuring tape, use your vast experience and the good part that you can see in green is that there is no touching. Great! That satisfies one condition that Porthos has, is there is no touching going on whereas what happens is that you with your eyeballing, with your vast experience still have poorly fit clothes, bad fitting clothes and that doesn't go very well with our Mr. Porthos. He is not going to like you because you have stitched bad fitting clothes for him. So what does he do? He takes his sword out, off goes your head. Not a good proposition.

Let's consider the other scenario, where you do use a measuring tape and you go and take all the measurements from Mr Porthos and as a result - this represented by the green box, the

measurements are perfect, absolutely perfect, they run very well, Mr. Porthos is happy because the clothes fit well. But in the process of measuring you touched him and off went your head. You probably never find out if his clothes have stitched well or not. Okay. So as designers, as design thinkers, we are in a manner of speaking greedy people, we want no touching and we want measurements to be perfect.

These are from 2 perspectives. So to speak, for good fitting clothes your measurements have to be perfect and to keep Porthos happy, you cannot touch him. So, these are 2 criteria that will give you the desired result that you are seeking in this problem. This is the conflict that you have to resolve. But as you can see, use the measuring tape off goes your head and you don't use measuring tape off goes your head, you have to solve this scenario. Thankfully we are just simulating. We are not actually doing this, so your heads still remains in place.

So, some of the solutions that you can probably think of at this moment is that well if he has old clothes, I would just get that and give it to him and that will probably solve the problem. Great! That's great! So we can actually solve this by giving him old clothes, giving the tailor, giving you the old clothes and that will probably solve it for you.

However, I wonder who stitched those previous old clothes of Porthos? Hmmm! Question to be answered. That's, that's a conflict again. So, you've got one and you've got the other. So, you keep going. So, next solution say I give you one more quirk that he has is, he loved food. He appreciated wine. So, my solution would be you know feed him wine, till he is absolutely stoned, he is flat and he can't move anymore. So, he can't even detect whether you are touching him or not, he would never remember and then you can go and take your measurements that would be another solution there.

You do use the measuring tape, your measurements are perfect and you have touched him. But he doesn't know that you have touched him. So, that way you are satisfying the customer that he thinks you have not touched him but you've still got your measurements. Okay. So another quirk of Porthos's character. So, more you know about Porthos you can actually get more solution.

So, another quirk of his character was that he'd loved his ladies. He had many relationships going on at the same time. So, you could actually train one of his mistresses to do the measurement. So he would allow his women to touch him and you could actually get the measurements done. So, that way you are not touching him, so there is touching going on but tailor touching Porthos doesn't happen. So, that way no touching is satisfied whereas still the measurements are perfect because you've trained one of the ladies to actually do the measurements for you. So, this is how we think that this 2 criteria are absolutely uncompromisable that you should get criteria one R1 plus has to be satisfied and R2 plus also has to be satisfied.

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So the solution that the tailor adopted in this case is to use the mirror reflection. This way there is no touching and you just have to ask Porthos to move around and he would make the measurements quite accurately. Yeah, he could argue but this was the tailor's solution that worked very well. This is an example described in and suddenly the inventor appeared a book by Generic Altshuler. This is a fun problem that was there I thought I could bring this to your attention and actually highlight the conflict of interest for you.

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I have another example that we've already looked at and I am going to look at it from, this time from a conflict of interest perspective, because we have already applied 5 whys to this problem and we are actually going to see what is the conflict in this case. Okay. So in this case, if you remember this case,, we had this student who showed up late every time and I asked him why and we drill down to 3 levels but we are picking up on level 2 where he is late because he went to bed late that's why he showed up late. If he had woken up early, he would be on time. So this is as simple as that, so there is no conflict in this he just has to wake up early to be on time that is as simple as that. However we realize that he has been going to sleep late because he had too many deadlines. So, this is actually the conflict that he has too many deadlines and that way he would never be able to actually go to bed early.

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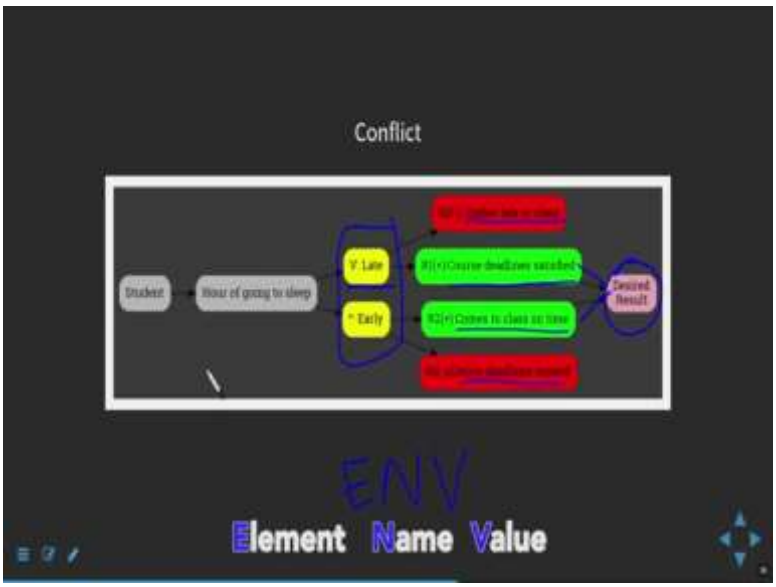

So the conflict in the way I have defined in my graphical format that you saw with Porthos's tailor. Here is the student and what we have in our control is the hour of going to sleep. So, he goes to sleep late, the positive is that his course deadlines are satisfied. So, that's one thing

that he does not have to worry but he has to deal with me because he comes late to class every time, because all these course deadline piling on his neck. Okay. So that's scenario 1 .
If we change the hour of sleep, he wakes up early. Great! I am a happy Professor that he comes to class on time. However, he goes on missing other courses deadlines and the other professors will not like that and probably his graduation will be on the line, so his neck is on the line so to speak. So, the conflict as we have defined it is that he has to satisfy both these criteria of coming to class on time. I don't want to see him late because he may be missing something important at the start of the class. At the same time he should not miss out on his course deadlines being satisfied.

So the design thinking solution should address this and this is what we are seeking. Any solution that you suggest to solve this problem has to satisfy both these criteria. The R1 plus of all the course deadlines satisfied and R2 plus of him coming to my class on time. Okay. So, this is the conflict as we have highlighted, so this is a visual way to convey this conflict. It is easier to demonstrate it to anybody, so whenever you are figuring out what is the conflict? It is easier to draw it in this manner and to explain it to somebody is also quite easy and also they can see it in colours. Yes, green is the stuff I want and red is the stuff I don't want.

So he has to go to sleep early to do this and he has to go to sleep late. So, you can actually do this, work on this. So, this model is called Element Name Value – ENV, Element Name Value. So all the elements are described, the values here are described and the names are given as well. So, this is what we mean by Element Name Value method of describing a conflict. So, this is a great model to understand a conflict. So, you can do some exercises that you can do on your own to see how to figure this out.

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I will post the answers the next week, next time we meet we will actually discuss the answers. We have these exercises. I am going to give you 3 problems, you can pick one, pick 2 for practice. If you are very confident you can even go to the 3rd one and do it. So, these are 3 problems that I'll describe and you can first do a multi-why analysis of the problem and

then do a conflict of interest analysis of the problem. So, that you figure out what is the exact problem that needs to be solved or you can figure out all problems and do all multi-why in different directions and you can make your life complicated and see how to solve them all. This is also possible once you get mastery over how to think in terms of whys and conflicts.

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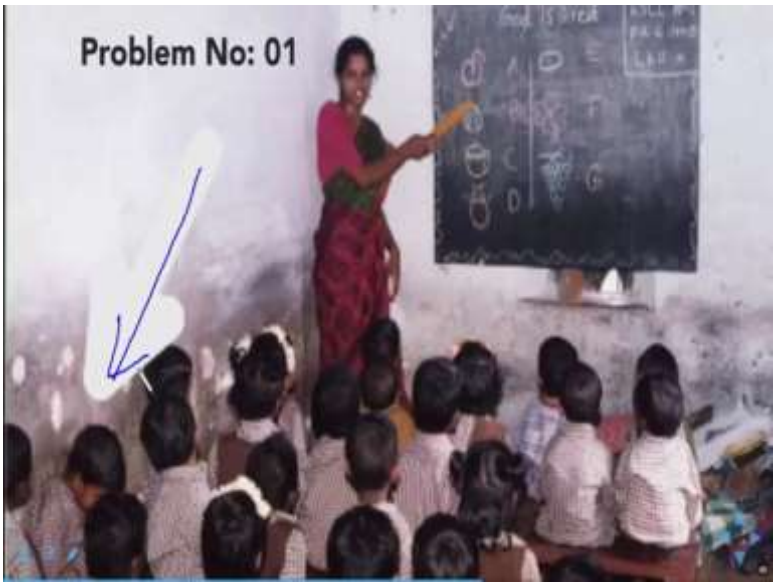

So the exercises that I am going to give are 3 problems. The 1st one is interesting. This is a classroom setup probably in rural India and the teacher is busy teaching to all the children. Now look at the kid here who is clearly distracted. I guess he doesn't have an iPad or a tablet or a mobile phone but I don't know what he is up. But he is not focused on the class. So, he is distracted child. So this problem is about teachers and children, so these are the 2 conflicting parties if you can think of that. So, here the teacher is trying to teach and the child here is not paying attention, may be the other children are looking at what the teacher is teaching but probably are not following.

So this is a typical classroom scenario where all children probably don't follow at the same pace and some of them are going fast, they are able to follow the teacher on the other hand maybe there are some of them are lagging behind. So, here the scenario is that the teacher wants to finish their syllabus on-time which means she has to keep the pace up, she has to keep going and this is not a recorded session like what we are doing with you but this is a live session where she has to change pace according to how people understand and if I have a large class like what you see in the picture it is going to be a challenge for the teacher to keep every child on-board, so this is a challenge that teachers often face.

So you have to highlight why is this happening? And what is the exact conflict between the children and the teacher. The requirement being she has to finish, I am going to give you some clues here. She has to finish her syllabus on-time. She can go fast or slow. The children have to keep up with her and also keep track of their learning.

So you will have to do the reasoning on why these things are happening up to any level you want and see if it matches up to what I have done in my reasoning and we will see this next class. So this is the problem number 1, like I said earlier you can do one of the 3 problems.

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So we'll go to the next problem. This is a space shuttle, a reusable space vehicle. This was originally launched in the 60s-70s and has been on tested and launched in the 60s-70s. This is been on for a while, many many space shuttles have been launched and they have safely landed back. So, I am going to describe to you not only about space shuttle but also about any aeroplane that you probably have seen landing on a runway like what you see in your picture. What I would like to demonstrate to you is the fact that there is a lot of smoke when the airplane touches, in this case the space shuttle touches the tarmac or the runway.

So the reason I am going to give you one of the whys is the reason there is lot of smoke as you can imagine. I will give you some time you want to think about it, okay you can pause the video and think about it. Okay, so some spoilers for you, you can still pause. The reason there is a lot of smoke, puff of smoke coming at the back of the wheel is that there is a lot of friction between the wheel and the runway. So, the plane is very, very fast when it lands. Obviously the ground is not moving, it's at 0 speed so that's going to lead to a lot of friction and hence leads to a lot of smoke and not only smoke, the smoke is because of all the tyre wear, okay.

So you can do this say I don't know I am not an aerospace engineer but probably I am guessing probably few times before the tyre wears out and this could be a problem of the tyre wearing out, okay. So now you will have to think about how do I do the 5 whys on this particular problem! I will give you a hint again like I did for the earlier problem is that the speed of the air craft cannot be slowed down, why? Because it might stall as I read in some magazines - aerospace magazines is that the airplane actually stalls if you slow down too much. So there is a certain prescribed speed that you cannot go below. Okay. So that is what you have to look at. So you have to think about what are the 5 whys, few whys at least 1 or 2 or 3 as much as you can find out and now do a conflict analysis of the parties at conflict, possibly… hint hint
possibly the tyre and the runway okay. So you can look at it and see what the conflict are, we will cover this in the next time.

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The 3rd problem that I am going to cover is a sweet problem as I call it, it's a very sweet problem.
One of my favourite problems because I love to solve this problem. This is the company Hersheys. They posted a problem on an open innovation platform and they wanted to solve this
problem, okay. So what the problem was simply that they wanted to transport say a container of Hershey's chocolates like this, I love chocolates by the way. They wanted to transport this chocolates from one geography to another. The only problem is that the other geography is very
hot and so what happens when chocolates actually are taken to hot conditions? Simple. Have you guessed it? Yes, it melts, it can actually melt.
The chocolates are not very good at high temperatures, so I would guess about 25 degree centigrade ought to do right for these chocolates. So if their ambient temperature is very very high, say in the order of 30-35 degrees or 40 degrees it's going to be very difficult transporting
these chocolates.
So the condition from Hershey's is that - Yes, you can design packaging which they already have to transport, but it needs to be able to withstand this change in temperature but at the same time it has to be very cheap, okay, very, very inexpensive, if possible do without costly material or tough to assemble material then you are okay, that's the problem that was posted. Again we will analyse this next time using 5 whys and the conflict of interest. Again a hint in this case would be that the parties in conflict is the chocolate itself and the ambient air around the chocolate.

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So you can take a stab at these 3 problems, in one you can analyse on your own. If you are confident go to the next one and I will be very happy if you can attempt all 3. So, that's it for today. We will see you next time with the analysis of these 3 problem. Okay. Take care. Bye.