

Theory of Design

Lecture 1

We will look at the definition of design and the understanding of design in this episode. Let's move on to what design is. This definition states that design is the creation of a plan or convention for the construction of an object, system or measurable human interaction. We don't understand so many terminologies, let's try to break it down into little pieces to understand the definition better. Let's take a closer look at the words in the definition, Creation. What exactly is creation? Creation is making something from scratch usually. It states, the beginning of something into existence. What you do is, you bring something into existence which did not exist before and that's a creation. Forming is a creation, you form a company, a group, that is creation. Putting together is creation, setting up your own computer is creation, creation is also construction, creation is also the erection of certain things. In general, creation is making something, it is beginning of something into existence. You take something that doesn't exist and then you create it. So, design is creation. Creation of a plan. What is a plan? The plan is a detailed proposal for doing/ achieving something. It's a scheme. Scheme states do that, do this, do that, do this in order to achieve something in particular. That's a plan. The plan is also an idea that can bring about a change. It is also a game plan. People before going to a game or a sport, they prepare something called a game plan. They decide what to do, how to do, who plays what. For example, in football, when they go upfront before they get into the game, they will decide who will defend. They will also decide how many people will be in defence. There could four or three people who will be in defence. They will also decide who is going to play midfield, in the middle of the field area. Again, there will be two or three people who will be playing mid-field or even four sometimes. You will also decide who will play forward, two or three people or even four people sometimes. Some of the former players should play the role of the striker. The striker is the person who hits the goal. While anybody can hit a goal, the striker is a person who is meant for that particular purpose and the other people in the team, pass the ball and make the striker score. That is creating a game plan. The plan is also a proposal. A proposal is something that is the initiation of an idea, where you tell an idea to someone, that is a proposal. A plan is also a suggestion or a recipe, just like you have recipes to make your favourite dish, plan is also a recipe. Plan is to form an agenda, like a road map, a map which tells you where you are and if you know where you need to go, it will give you the directions to the road you need to take. This is the idea of a plan. They say a design is a creation of a plan. You need to make the detailed scheme/ layout of how to execute or achieve a certain thing. Design is to create a plan or convention. You now know what a plan is, what a scheme is or what an idea looks like. Convention is the way in which a certain thing is done. You always say colloquially "conventionally it's been done that way". The convention is a habit, a norm, a custom, practice, a general way in which things are done, a protocol, a deal, a pact. The

design is creation of a plan or convention. The convention is usually applied over the norms or the habits, the general way in which a certain thing is done. When you make a convention totally, when you create it, that becomes design!

You make a plan or a convention but what do you achieve, what does a plan need to do. Construction is the action of building something, to establish, manufacture, fabricate, form, fashion, make. What do you construct? An object. An object is described as anything can be seen and touched. Object can be things, articles, items, piece, gadgets, entities, furniture, pens, stationery, anything.

Construction of either an object or a system or something of measurable human interaction. What is a system? A system is a set of things that work together as a part of a mechanism. An interconnecting network, a complex whole, order. If you make a plan or a scheme to construct this system in order, then you are designing.

The final aspect in this definition is the 'measurable human interaction'. If you make anything of a measurable human interaction, that is a design. What will give you a measurable human interaction? Design is a creation of a plan or convention of an object, system or measurable human interaction. Now, we know what design exactly means. What is design in compass? What is the expanse of design? Design has applications in many many industries. Have you ever seen an army man, he wears a camouflage dress, green and yellow outfit, that is a design. He wears it in order to merge with the surroundings, bushes. It is called camouflage design.

Design has applications where, when you are driving down the road, you see a sign that states 'Delhi 400 km', that particular sideage, the typeface or the font they have used or the size in which they have printed that or the reflective quality in which it is done, is the same across the entire nation. Sometimes the similar protocol is followed worldwide, that is design. You design it in a way that is the least confusing to people, that is the objective of that particular design. If there is a new model of Ferrari that is out, features of the new car has something that is not present in its previous editions, that is a new design. To make a building that is a new design, to write a book that is design, to create a product that is design, to make a light fixture, that is a design. Create, plan and work towards making the neighbourhood better, that is a design. Design has its expressions in many fields and are not limited to this list. Starting from army design, applied arts, automotive design to visual design, UI design and Web design. It could be anything.

Let's step into architecture design. In this picture, you'd easily notice the brand, the box and what is hanging outside the box; you'd be able to clearly see that it's a shoe box and this comes

along with the labels and everything just like when you purchase a shoe. But what if I say this is not just a shoe box? This is actually a building which has been designed to emulate a shoe box which has a door. People can step into the building and get out of the building and this is an Adidas store. He has taken an inspiration from the shoe box, the shoes that Adidas sell; he has taken that and tried to emulate the entire building that looks like a shoe box with a product peeping out from the box. This is the front elevation of the building.

Let's take another example here. I'll tell you the problem of this particular example and then let's see the genius of the solution. Here what happens is, there is a c-shaped building, a building on three sides which is actually not seen in this picture. There is a water body that runs right next to the building. Usually the ships come in and then parks here to make sure people get off easily from the building, to not disturb the main flow of the river. Also, it's easy for people to load and unload. But when the water body is here, people have to walk a long distance across to cross onto this. That was causing a huge hindrance. The architect Thomas Heatherwick, he designs a bridge that can be rolled like this when a boat is coming and can be rolled out to form a pedestrian bridge when people need to cross. This is how the design works. Here, if you see the railing of the pedestrian bridge, it gets transformed into the inner circle. The designer has even thought about the simple things like the horizontal rail which is here, it bends to make a v-shaped element, finally gets integrated onto the center, to form the center of the circle. This is an octagonal bridge of individual panels, let's take a look at how this building bridge works.

Let's get into the gamut of communication design. There was this shoe company which came up with an innovative idea of giving out bags. Instead of giving out bags, they designed the bag in a manner that looked like there is a shoe and a lace for the shoe that helps carry the bag. Look at how innovatively they have tried to integrate the element of object which they are supposed to design. Clearly the utility value is not reduced because of the design, it actually enhanced the user experience by making them clearly understand that this is a bag from a shoe shop. Also, the communication is very clear and it also serves as an advertisement from the shoe company.

Let's get into the world of Fashion design - this fashion designer here has drawn inspiration from the flower here has made basic sketches and just by using the petals of the flower, he has tried to design the entire costume. Take a look at all the individual elements. The elements that form the shoulder blade, the elements that form the waist line, all the elements are clearly formed by the petals themselves. This is a dress inspired from a flower, how creative!

Who came up with an interesting fashion art symbol? The usual t-shirt is not folded like this, the regular fold is generally half the t-shirt size, the usual size of the bag is twice the size. Hence,

the bag states 'I'm half the bag I used to be'. This bag here uses less material because they folded the t-shirt one more time and the bag is also made from 100% bio-degradable material because they wanted to make a statement to the world that they are eco-friendly. They introduced just one more fold to the t-shirt which reduced to half the size of the bag they need to design. One simple design made one simple change to what we do. This changes a great aspect to the atmosphere and the environment.

Let's get into the world of Graphics Design. Take a look at the picture, this is a production company that has the title 'k._lled' productions. They came up with a very interesting idea of making the 'i' that's supposed to be standing, fall down like this '._'. The 'i' simply represents a man with a head and a body, it was designed in such a way that the 'i' has fallen down to resemble the man who has been killed, k._lled productions.

Let's take a look at this picture here, it says 'London London'. The London bus company is very famous, anybody who goes to London, take a picture of the bus and posts it. Take a look at the colours here, the colour is red because the London buses are always red and the 'O' represents the wheels, the wheels of a vehicle is black and hence the two 'O's in the second line are black. They have brought the two 'O's a little down to represent the wheels of the bus. Also, they have done it in two lines so that people will understand that it's a double deckered bus. London buses are double deckered, red in colour, black wheels; how simple is the entire concept of the London bus described in two words. This is the bus for a zoo, this bus takes the people who have come to the zoo, within the zoo. While the zoo isn't operational, the bus goes around the city as a marketing tool. The graphics and the bus is designed in such a way that, there is this huge snake which coils itself around the bus and tries to crush the bus. Actually, there is no snake and no threat either but it has been painted and done in such a way that the body of the snake is crumpling the metal around it and trying to crush the bus. All the crumpling and everything has been done by painting, pure design. A brilliant advertisement indeed.

Here is a simple picture of a person holding a hand in this shape and then, there is something here but there is anything here. We all know that the shape of the hand resembles the bulb. The bulb stands for ideas, this graphic represents a man giving out ideas to people. Even without showing the bulb or the filament, we know that this is what it represents. Then, there is very clear T-shirt design which showed pictures of cigarettes piled together in the shape of lungs and positioned at the exact place where you're lungs would be when you are wearing the t-shirt. It gives out a very subtle message about how when you keep smoking cigarettes, your lungs are going to be filled with tar and smoke and you are going to die earlier than you would otherwise. The t-shirt is simple yet a powerful social message in a very subtle manner. This is graphics design.

Let's delve into Industrial design where this company is producing tea bags in a very innovative manner. This tea bag is made in the shape of a bird, there is tea inside and this is the cover that comes along with the tea bag. Designed in such a way that the bird is taking flight and you put it inside the tea bag, the bag swells up and the bird becomes bigger and the wings fall out to depict the bird is taking flight. Else, it's just a small strip, when you put it in hot water, the bird appears and becomes bigger. On the right hand side is another tea company that manufactures tea bags. However, instead of putting a plain tag, they thought about putting interesting objects here. While this man is trying to bungee jump from the string, there is another who is trying to do rock climbing with this rope. This signifies the fitness quotient the tea can offer. This tells that if you drink this tea, you'd become fit enough to do mountain climbing, rock climbing or bungee jumping. There is another subtle message in this industrial design. By simply changing the way you put your tags from this to this. This is another interesting design where a person has come up with a creative way of designing helmets, to resemble the human face.

The helmet is completely designed to protect your head and everything. All the necessary thing about the helmet is there but the outer graphics makes it appear like you don't wear a helmet. There is a card on the right that says, you are awful, it's a very bad thing to say to a person but if you unfold it, it states 'you are awesome and wonderful'. The fold clearly hides what it really is. This is another way in which you can make people laugh.

Industrial design also produced another great product. We have all seen a rubix cube, where we try to match the colours on a particular side. There are six colours - red, blue, green, yellow, white and black. But this person designed the rubix cube in one colour entirely, across all sides. Why would anyone do that? A rubix cube is all about matching the colours on all sides, that's the point of the game, right? Why did a person try to design a rubix cube that had all sides in white. Take a closer look at the rubix cube and you'd notice there are certain markings here. There you'd see, this is written in braille. This is a rubix cube for the visually challenged people. The visually challenged people can use the rubix cube to experience the pleasure of solving a general rubix cube giving their braille some very good activity, negating the fact that even though they are visually challenged, they can enjoy all the pleasures every other person gets to. Recently, in the Rio paralympics that was conducted, for the people who are visually impaired, the medals had little balls placed inside, so that when they shake the medal they hear the sound. The gold had a lot of balls, the silver medal had a lesser number of balls than the gold and the bronze had the least amount of balls. When they shake the medal, they can actually feel their medal. Look at the power of design and what it can do to change the way we think.

This is Landscape design and we can use waste tyres to generate a landscape out of it. The grass could become your seatings. A lighting fixture could be as simple as paint pouring out of a bucket. Then there is the urban design where you try to sculpt your surroundings, your neighbourhood, your city. This is product design where different products have been designed specifically to your function and aesthetic. Try to look at the same material, instrument or product from a different sense from a more practical sense. This is a tissue paper holder that states, if you keep using paper, you'd change the colour of South America. What was once green, will become black if you keep using paper. This was done to instigate people to use less paper in toilets, a genius move. A slipped with grass was done to ensure people walking on urban streets, would feel like they are walking on glass. This one's a juicer that's directly connected to the water bottle, so you don't have to keep pouring from one vessel to another. This is a chair that looks like putting one foot over another, sitting cross legged.

This book shelf wants to quote something. According to Saul Bass, 'design is thinking made visual' and Steve Jobs stated 'Design is not what it looks like and feels like, Design is how it works.' Let us quickly move on to what we learnt in this lecture.

We understood the concept of design, we saw the definition. We saw the types and facets of design. We also saw design examples. With this, we should be able to answer the questions - Define design, Explain the definition. What are the fields of design? Explain design with a few interesting examples. We will look out for more design features and a lot of theories in the upcoming episodes, until then, thank you!