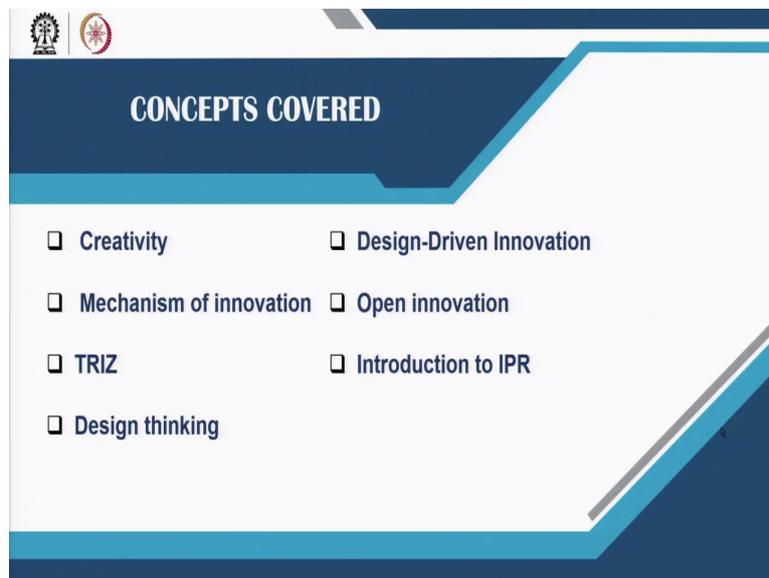


**Entrepreneurship Essentials**  
**Prof. Manoj Kumar Mandal**  
**Rajendra Mishra School of Engineering Entrepreneurship**  
**Indian Institute of Technology, Kharagpur**

**Module - 06**  
**Lecture – 27**  
**Design and Innovation – II**

Hello, in this session we will be discussing about the innovation process that works at the back of our mind in both conscious and subconscious mind.

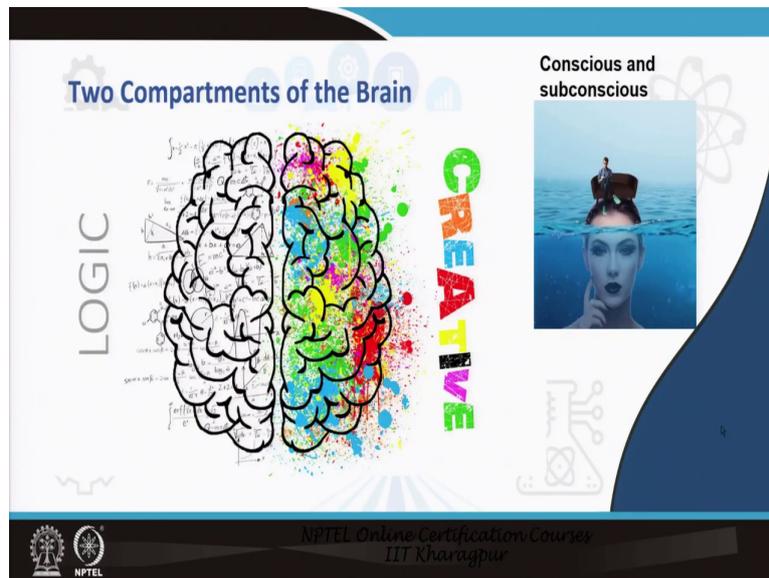
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Another topic that we will cover is Design driven Innovation.



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Now, on our brain has two compartments, its well established that the left brain is responsible for cognitive talent and the right brain is responsible for creative talent. So, what we study from childhood and try to acquire by reading books by learning from peers and seniors and then we accumulate that in other left side of the brain, our sense of reasoning, our talent of reasoning and all that are responsible for cognitive side of the brain.

And the creative side of the brain gives us artistic pursuit and anything that is creative, that can be termed as creative. So, usually our academic system in the world per se is focused on cognitive part of the brain because, it's easy to test your cognitive skill. So, in your resume may you whatever you write this is the result of your cognitive sharpening of your brain, how sharp your cognitive part of the brain is.

It's not really; it does include, but a very small component of your creativity like suppose you have developed a technology or you have written a book or done something that is out of the box, out of out of the box thinking. So, that part is slightly less visible, in the academic curriculum because academics normally want that you should read a book and understand and then in examination you try you reproduce whatever you have learned. There are other examinations where your creative talents are also tested.

Now, other than that there is another issue about the brain that is the subconscious side of the brain, it is all it is said that we use only 5 percent of the brain. Then we should question us to what happens to the other 95 percent of the brain, and that is actually the subconscious part of the brain.

So, we consciously we use only 5 percent of the brain, but then it is definitely true, that we actively used use the other 95 percent, but we are not aware that it is getting used subconscious mind never sleeps. So, it is always awake, even when you are sleeping your subconscious is awake and it is churning many of the thought processes that you have dumped into maybe your frustration, maybe your happiness, joy or whatever you are excited about, the subconscious will be churning and then doing exercise and things like that.

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**The Creative Process**

- Researches have shown that the creative process can be perceived to be a five step process. The process starts from problem identification and definition:
- **Idea germination** – the seeding stage of a new idea: **Recognition**
- **Preparation** – conscious search for knowledge: **Rationalization**
- **Incubation** – subconscious assimilation of information: **Fantasizing**
- **Illumination** – recognition of idea of being feasible: **Realization**
- **Verification** – test to prove idea has value: **Validation**

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So, there is a subconscious part of mind, now how this how the innovation process happens inside the mind? Resources have shown that the creative process can be thought of as a 5 step processes, meaning there are 5 stages of inventing something or creating something. So, you start by empathizing with something, say some people or a business or a situation, so empathy gives you or helps you to define the problem that you are trying to find a solution to.

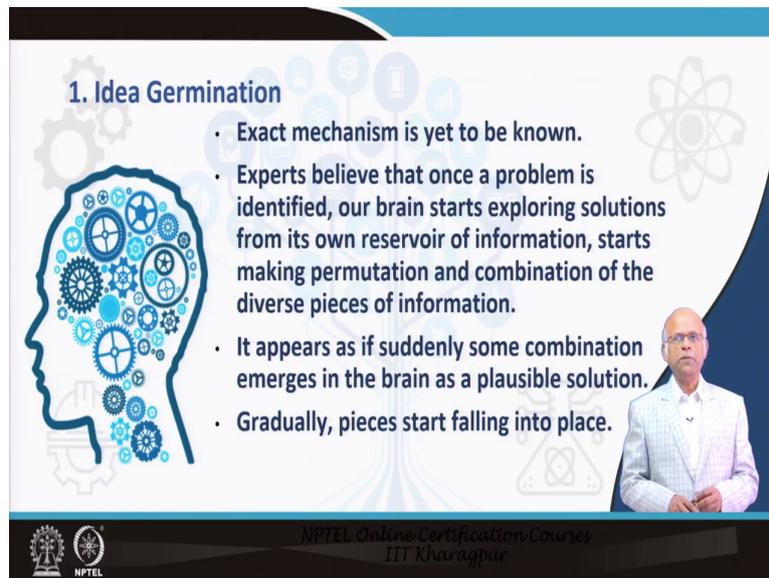
And then once you define the problem correctly, then you consciously and subconsciously both you try to germinate ideas as to how to find a solution. And then, there is a to and fro traffic between your conscious and subconscious; sometime consciously you start thinking you take a pen and a paper and try to joint down something some design or something, then you stop doing that and you become engaged with a daily or routine work, but then your

subconscious is always trying to find that solution because the challenge has been given to your subconscious.

So, sometime it may so happen that you get an idea you recognize that ok there is a solution. Then comes preparation, your conscious search for knowledge like you try to see what is the state of the art by searching here and there or maybe you search in your cognitive side of the brain. Out of your experience, out of your education, out of discussion, out of out of so many other events that you are part of you gather, so much of knowledge then you search whether you get any clue as to how to find a solution.

And then you incubate that solution in your mind and at some point of time your thought process eventually comes up with a solution and there is illumination you think wow or how we have, I have got this solution, so I am done something like that. And then you start prototyping that is what is verification.

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**1. Idea Germination**

- Exact mechanism is yet to be known.
- Experts believe that once a problem is identified, our brain starts exploring solutions from its own reservoir of information, starts making permutation and combination of the diverse pieces of information.
- It appears as if suddenly some combination emerges in the brain as a plausible solution.
- Gradually, pieces start falling into place.

The slide features a graphic of a human head profile filled with various gears and mechanical parts, symbolizing the process of idea germination. A speaker is visible in the bottom right corner of the slide frame. The NPTEL logo and text 'NPTEL Online Certification Courses IIT Kharagpur' are at the bottom.

Let us discuss one by one. So, expert actually believes that our brain is has so many compartments. So, many nuggets of knowledge's here and there and then when you try give a problem or you encounter a problem, it tries to connect bits of pieces of this knowledge and then conjure up a solution, by pooling resources or information or knowledge from different parts of the brain and then come up with something.

And then gradually, gradually you come up with a solution, it might appear as if you suddenly got something, but its not sudden because in your subconscious things are actually getting churned all the time almost 24 by 7.

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**2. Preparation: Rationalization**

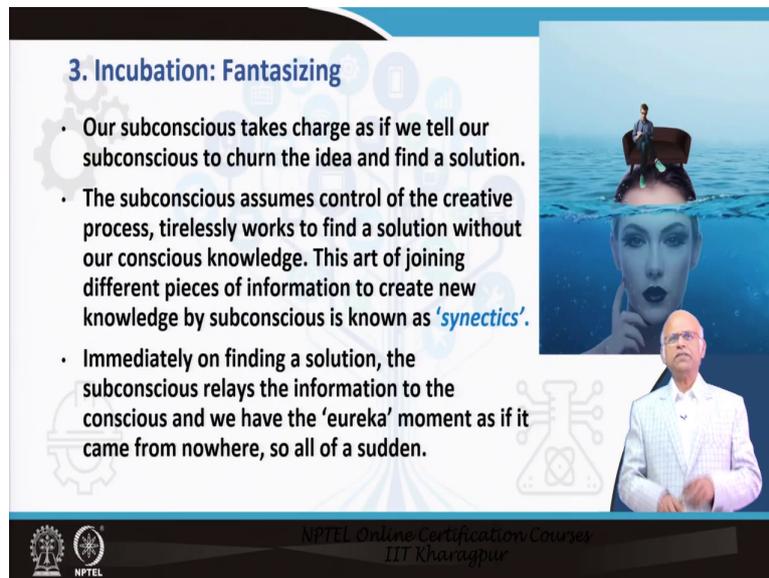
- Once an idea is seeded, the brain embarks on conscious search for increasingly better fit of the solution to the problem.
- A continuous back & forth, between conscious and subconscious, information transfer on new solution vis-à-vis validations happen.

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Now, as we give the problem to our subconscious, there is always this back and forth movement like, you are you time and again you sit with a formally to find a solution or maybe when you are relaxing you think that let me think about this problem, that is the conscious thinking.

But when you stop thinking and you engage in something else it's not necessary that your subconscious is not thinking your subconscious actually is thinking. So, there is always a to and fro motion, when you start thing next time or maybe some suddenly you get an idea ok, let me let me try this in some of the process and then suddenly you may actually get some idea.

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**3. Incubation: Fantasizing**

- Our subconscious takes charge as if we tell our subconscious to churn the idea and find a solution.
- The subconscious assumes control of the creative process, tirelessly works to find a solution without our conscious knowledge. This art of joining different pieces of information to create new knowledge by subconscious is known as '*synectics*'.
- Immediately on finding a solution, the subconscious relays the information to the conscious and we have the 'eureka' moment as if it came from nowhere, so all of a sudden.

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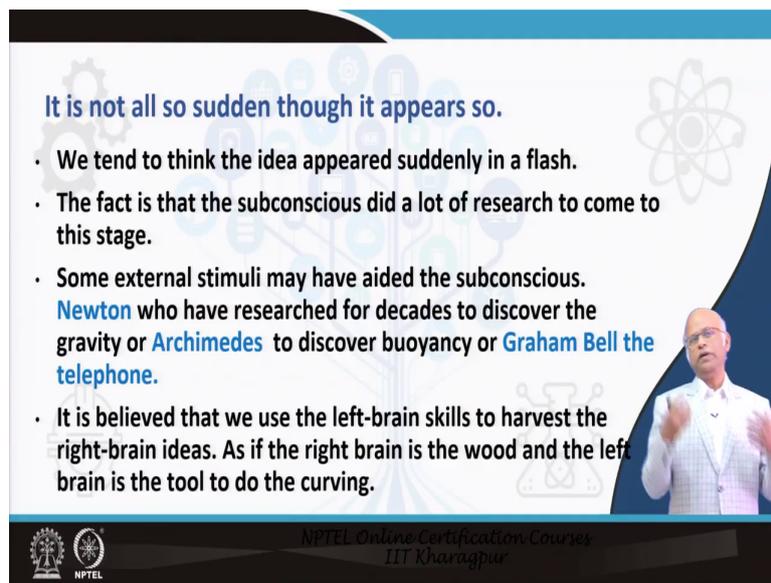
Other than conscious at the back of your mind in the subconscious there is always churning of this knowledge of this problem and it tries to find a solution through your cognitive and creative mind. It tries it does back and forth inside your subconscious, in among the among the cognitive and the creative part of the brain.

Because your cognitive side gives you the experience the knowledge that you have acquired and the creative side gives out of the box thinking. So, it kinds of combine them together and then they try to communicate among themselves and find a solution, this communication is called synectics.

And then sometimes, some stimulation happens and then you find a eureka moment, eureka I have got a solution. This is this eureka comes when your subconscious relays that findings whatever it finds sometime it finds and it thinks that perhaps this is a solution and then it

relays back to your conscious mind and you think that eureka have got something. But it is not sudden it is a continuous process and then suddenly if your subconscious finds that something is to be communicated only then it communicates.

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**It is not all so sudden though it appears so.**

- We tend to think the idea appeared suddenly in a flash.
- The fact is that the subconscious did a lot of research to come to this stage.
- Some external stimuli may have aided the subconscious. **Newton** who have researched for decades to discover the gravity or **Archimedes** to discover buoyancy or **Graham Bell** the telephone.
- It is believed that we use the left-brain skills to harvest the right-brain ideas. As if the right brain is the wood and the left brain is the tool to do the curving.

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And then you get the solution like say, when Newton was sitting under the tree and an and an apple fell, whether it fell on his head or some other place its not the first time that Newton saw an apple falling, but he was doing research on gravitational force for maybe a couple of decades.

And then suddenly falling an apple, but particular apple actually stimulated or kind of connected his subconscious thought and whatever knowledge that he was gathering, it kind of triggered that since that ok. So, gravity means earth is attracting something with gravitational

force, same is with Archimedes, same with Graham bell, Alexander Graham bell was doing an experiment with on a very different context, not really for inventing telephone.

His assistant was working on one end of a cable, he was working on the other end of a cable. So, his assistant suddenly pulled something there was a clunk sound on this side. And to the surprise of Graham bell, he found that this noise has been replicated on the other end, so that time it was the eureka moment.

And he realized that there is a communication through this cable, meaning whatever sound is generated this side this sound is coming here its not sudden. He was doing research for from his childhood because his mother was deaf and he was passionate about finding something that; finding something that amplify the sound. So, sound was his research, but then telecommunication telephone invention of telephone was almost like a byproduct, but then he was thinking for a long long time.

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**Our Subconscious is Much More Powerful than the Conscious Brain. The moot question is can we exploit it more than we usually tend to do.**

**Though there are not many empirical evidences, you may perhaps tell your subconscious to perform tasks.**

The slide features a central image of a person meditating in a lotus position, surrounded by a vibrant, glowing field of red and orange particles, suggesting neural activity or a subconscious state. To the right, a small inset shows a man in a white shirt speaking. The background is a mix of white and blue with faint icons of a brain and a network.

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So and then this actually happens with traffic between your cognitive and the creative side and conscious and subconscious side. Now, this means we can actually communicate with our subconscious explicitly meaning that you can tell our subconscious that you do this for me. Perhaps there is no empirical evidence per say, but then it's difficult to give an empirical evidence, I will give one and there may be actually many.

Like suppose you go to bed at any point of time in the night suppose, 10, 12 or 1 or 2 or 3. And then suppose you think that you should wake up after 2 hours. Normally, we wake up at a particular time our body has a biological clock and we know that 6 o'clock is the morning, and I have I am habituated to wake up at 6.

Now, suppose you tell you go to bed at 12, and you tell yourself that you have to wake up at 2, till you sleep you have to continuously remind yourself that you have to wake up at 2. And

suddenly you will wake up and see that the clock actually shows exactly 2 o'clock. So, who is keeping the time and who is awaking you? Perhaps, again I have no documentary evidence, but perhaps your subconscious never sleeps and it keeps the time and it awakes you.

Similarly, you can miss, the sleep is a nice time to be because your conscious side is absent. So, your subconscious is awake. So, if you have any bad habit what so ever suppose in the sleep somebody wets the bed or does whatever, say bad dream comes in his or her sleep.

If that person tells herself or himself, that I must not do this in my sleep chances are very high that that particular night he or she will not have this problem. No medicine is necessary just one has to tell himself or herself that in my sleep, today, tonight I must not do this. Why this long story is like this? If we can tell ourselves, that I need to wake up at 2 o'clock, awake me at 2 o'clock, we can actually tell our subconscious many more things.

We can tell our subconscious that I must get rid of some of our bad habits, I must inculcate some of the good habits we can actually tell this and our subconscious actually may help us to perform much better than what we perform. We can perhaps improve our brain per se by exercising our subconscious by consciously telling our subconscious that we need to do this.

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**4. Illumination: Realization**

- The conscious brain starts adding value to the idea from its cognitive reserve of knowledge.
- Iterates and validates repeatedly.
- A moment comes when it appears that the perfect solution has been received. You say 'Aha, I see'.
- Illumination may trigger by an external event. Like Alexander **Graham Bell** and **Marie Curie**.

The slide features a central image of a bright sparkler exploding against a dark background. To the right, a man in a white shirt and glasses is shown from the chest up. The background is decorated with faint icons of a gear, a lightbulb, a brain, and a chemical flask. At the bottom left are the logos for IIT Kharagpur and NPTEL. At the bottom right, the text reads 'NPTEL Online Certification Courses IIT Kharagpur'.

Then, once the idea suddenly is relayed to our conscious we say I see this is the solution, so whether it's Graham Bells or Marie Curie or say Newton or Archimedes. It was years of research that was actually going both consciously and in subconscious and suddenly something triggered and they got this ah moment or eureka moment, that is what is illumination.

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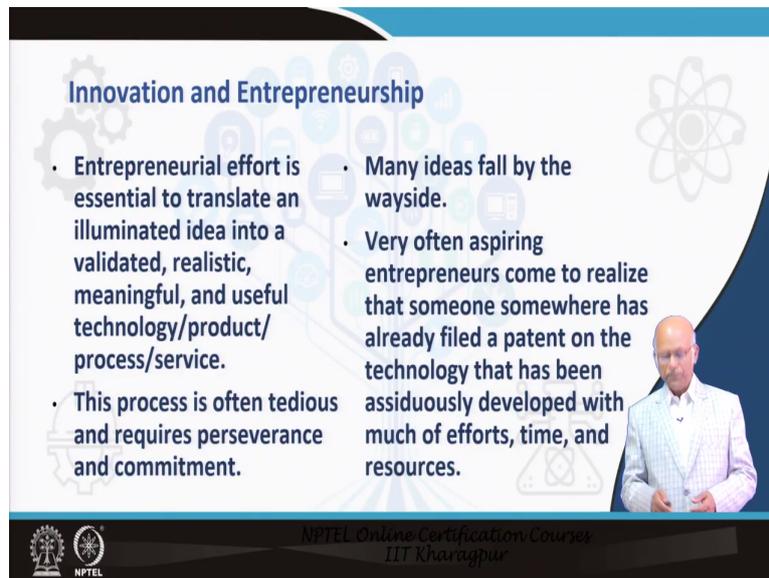
**5. Verification: Validation**

- At this stage the cognitive brain takes over, helps to make prototypes, and helps to validate.
- Eventually, the idea is converted into a commercially relevant technology.

The slide features a background with a stylized tree of icons representing various technologies and processes. In the bottom right corner, a presenter in a white shirt is visible, gesturing with his hands. The NPTEL logo and text 'NPTEL Online Certification Courses IIT Kharagpur' are located at the bottom of the slide.

Once you are illuminated, now it is your job it is not done. Because, you need lot of experiments to do, because these are all happening in the mind. When you translate that into something tangible, you will find that whatever you thought even 50 percent will not go the way you thought there will be surprises, and most of them nasty surprises you have to rethink you have to put the problem back to your brain and then churn it again and then only some solution will come after repeated trials after repeated prototyping, repeated validation. It's a tedious process, but unless somebody traverse that path is very difficult to really invent something.

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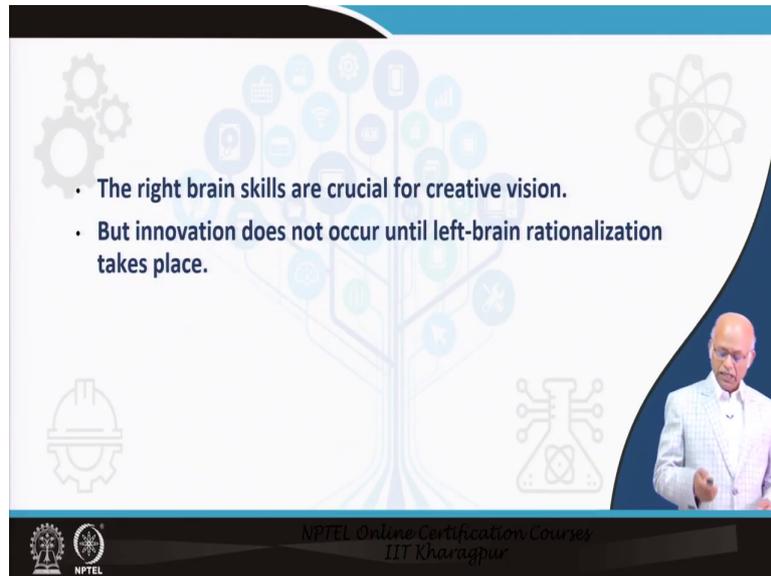


### Innovation and Entrepreneurship

- Entrepreneurial effort is essential to translate an illuminated idea into a validated, realistic, meaningful, and useful technology/product/process/service.
- This process is often tedious and requires perseverance and commitment.
- Many ideas fall by the wayside.
- Very often aspiring entrepreneurs come to realize that someone somewhere has already filed a patent on the technology that has been assiduously developed with much of efforts, time, and resources.

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The slide features a central graphic of a tree where the branches are composed of various icons representing different fields of study and technology, such as a gear, a lightbulb, a bar chart, a network, a microscope, and a person. The background is a gradient from light blue to dark blue. Surrounding the tree are several icons: a gear, an atom, a hard hat, and a chemical flask. A small inset video of a speaker is visible in the bottom right corner of the slide area.

- The right brain skills are crucial for creative vision.
- But innovation does not occur until left-brain rationalization takes place.

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**Design-Driven Innovation**

Design-driven innovation aims to produce products that are useful and meaningful to customers.

It is about introducing new meaning in a product or service that gives customers unique experience and unique sense of wellbeing

The slide features a central graphic of a tree with various icons (gears, lightbulbs, charts, etc.) as branches. There are also icons of a hard hat and a circuit board. A small inset photo of a man in a white shirt is visible on the right side. The bottom of the slide contains the NPTEL logo and the text 'NPTEL Online Certification Courses IIT Kharagpur'.

Our next topic is Design-Driven Innovation. Design driven innovation is it's not really how to innovate, but then design driven innovation gives a new dimension to innovation. Meaning, a new elements to be added in our innovation process and that is what is called meaning in a product or service, new meaning that gives users or customers new experience the present world even the previously also people used people normally look for sense of wellbeing.

So, if you can give something a product and some features on the product, that makes people happy and surprises them positively, in the positive sense, they will feel they will get that ah moment this product I just love it. Then what they will do is they will use that they will brag upon that that ownership of that product to their friends and relatives they will talk about it in drawing room in offices, in restaurant. And then people will come to know about that, people

will buy that they will also have the same experience and then your product will sell more and more and you will have a loyal fan following.

So, experience new meaning that gives customer new experience can add lot of value, it can give you a strong brand presence then when the when there is a loyal following of a brand you have pricing power, you can earn more profit your sales will go on increasing you can acquire customer without really spending a lot of money. So, overall by adding or by being able to add new meaning to a product or service, that gives new experience pleasant experience and a sense of wellbeing, then we have a winning proposition of our startup or say entrepreneurial venture.

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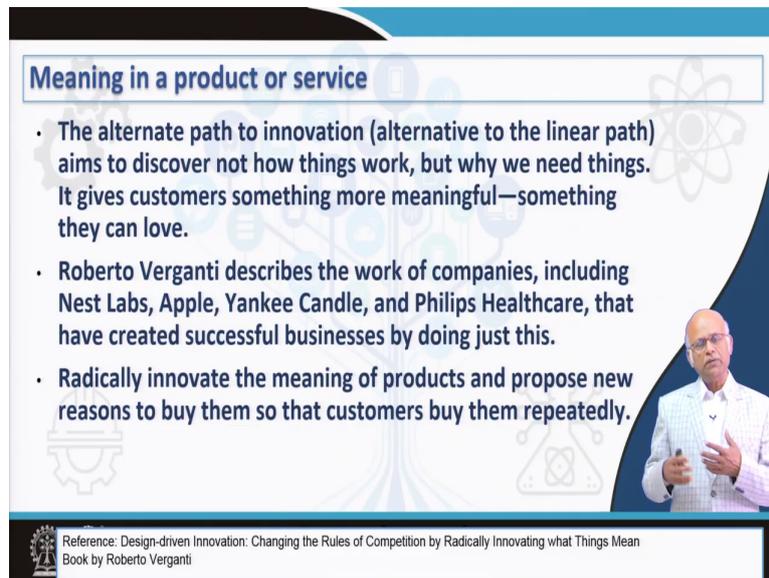
**Meaning (Experience) in a Product**

The meanings that a product or service might have for its users include the memories it invokes, the extent and quality of interaction and enjoyment.

The slide features a central graphic of a tree with various icons (gears, a hard hat, a brain, a lightbulb, a gear with a brain, a gear with a gear, a gear with a gear, a gear with a gear) as leaves. A speaker in a white suit is visible in the bottom right corner. The NPTEL logo is in the bottom left, and the text 'NPTEL Online Certification Courses IIT Kharagpur' is at the bottom.

The meaning that a product or service might have for its user include memories, it invokes the extent and quality of interaction and enjoyment, means that people just enjoy that product.

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**Meaning in a product or service**

- The alternate path to innovation (alternative to the linear path) aims to discover not how things work, but why we need things. It gives customers something more meaningful—something they can love.
- Roberto Verganti describes the work of companies, including Nest Labs, Apple, Yankee Candle, and Philips Healthcare, that have created successful businesses by doing just this.
- Radically innovate the meaning of products and propose new reasons to buy them so that customers buy them repeatedly.

Reference: Design-driven Innovation: Changing the Rules of Competition by Radically Innovating what Things Mean  
Book by Roberto Verganti

So, the way I said that, if you really can give meaning to the product then it because it becomes likeable by customers and it you gain sustainable competitive advantage and then you sustain the business, a profitable business.

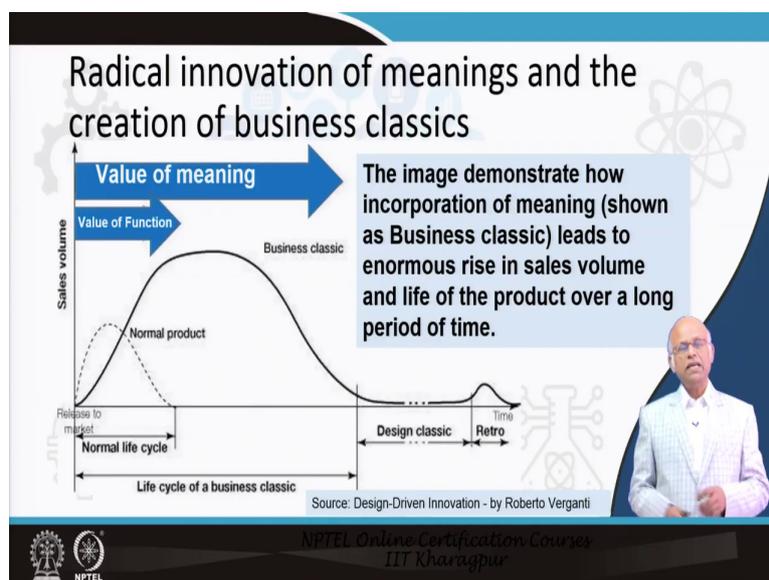
The other alternative is to go in a linear path or this technological innovation that that helps you to remain ahead of the technology that is fine, but then giving meaning as well as technology both together is going to give you a laborious, unique laborious that you can laborious and enjoy enormous competitive advantage.

Roberto Verganti actually wrote a book by the same title, design driven innovation. And that describes the work of companies including Nest Labs and Apple, the Yankee Candle, Philips

Healthcare that have created successful businesses by doing exactly this. Meaning that, giving new meaning to their products and then they get loyal customer following.

So, there are two things; one is radically means, technological radically innovate on technology ground and radically innovate new meaning to your product. So, this two together actually gives the competitive advantage.

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It has been demonstrated beyond doubt that products with radical meaning that gives experience sustained for a long time. Whereas, wonderful product, that has wonderful features, they are efficient, they are they look they aesthetically nice.

But then their lifecycle is much shorter compared to those products whose who gave radically new meaning their life is much longer and companies reap benefit out of them for a long time.

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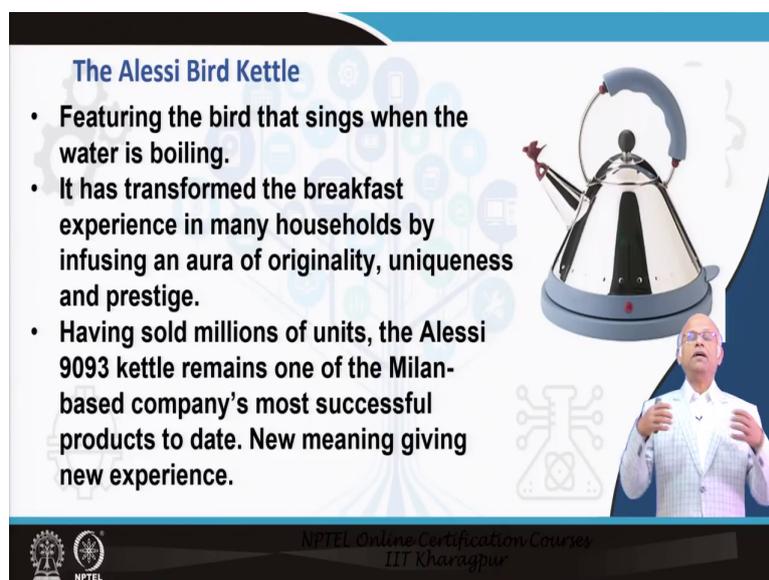
For example, Yankee Candle. See, candle lost it's relevant long time back, we normally do not use candle nowadays, but then an candle cost something like 2 rupees, 3 rupees to 5, 10, 15, 20 rupees or maybe 50 rupees. Look at this candle, it sells for 20,000 rupees in Amazon. Yankee came up with this new idea, they give new meaning to a candle and customers got new experience they do not mind paying 20,000 rupees for a candle.

First of all, it's a wonderful packaging, wonderful glass jar within which this candle is packaged, then the candle has different aroma. So, you can buy the aroma that you like. So, you can keep that candle in the corner of your room, after a long day of hard work you come

home, you do not put electric lamp, but you glow this candle lamp and then sit with a soft music perhaps, soft light, soft music.

So, perhaps you revitalize your organs and then you are kind of full of energy all over again, something like that that is the philosophy. And people actually got that experience that meaning and that is why people do not mind paying, so much of money to buy a candle.

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**The Alessi Bird Kettle**

- Featuring the bird that sings when the water is boiling.
- It has transformed the breakfast experience in many households by infusing an aura of originality, uniqueness and prestige.
- Having sold millions of units, the Alessi 9093 kettle remains one of the Milan-based company's most successful products to date. New meaning giving new experience.

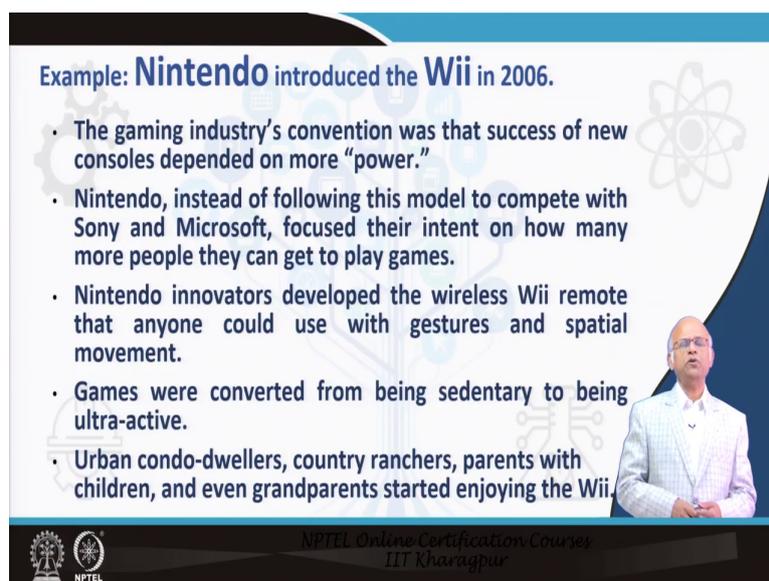
The slide features a silver Alessi Bird Kettle with a bird-shaped spout. A presenter in a white shirt is visible in the bottom right corner. The background includes faint icons of a lightbulb, a gear, and a circuit board. The NPTEL logo and 'NPTEL Online Certification Courses IIT Kharagpur' are at the bottom.

So, meaning and experience that helps to earn so much a profit. This is another a story that Verganti mentions, Alessi bird, Kettle is was always there. So, kettle keeps your tea or coffee hot or water, but then this is a different kind of a kettle, it has a bird like plastic attachment at the end of the nozzle. When water will start boiling, steam will come out of the nozzle and then this bird will create a sound that will sound like a bird whistling.

And when this product was launched, it is nothing big, but then people found it a wonderful meaning in the product something like a kettle and they had wonderful experience. So, whosoever bought this they started talking to other people that you know I have this kettle and its a bird kettle and this is wonderful, and then it started it became almost like a revolution.

Whereas, this plastic costed the company hardly anything, but then they sold millions of these kettles, there is still selling. So, this bit of thing which is not really a feature in that sense, it just gives a new meaning to the product and people get new experience.

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**Example: Nintendo introduced the Wii in 2006.**

- The gaming industry's convention was that success of new consoles depended on more "power."
- Nintendo, instead of following this model to compete with Sony and Microsoft, focused their intent on how many more people they can get to play games.
- Nintendo innovators developed the wireless Wii remote that anyone could use with gestures and spatial movement.
- Games were converted from being sedentary to being ultra-active.
- Urban condo-dwellers, country ranchers, parents with children, and even grandparents started enjoying the Wii.

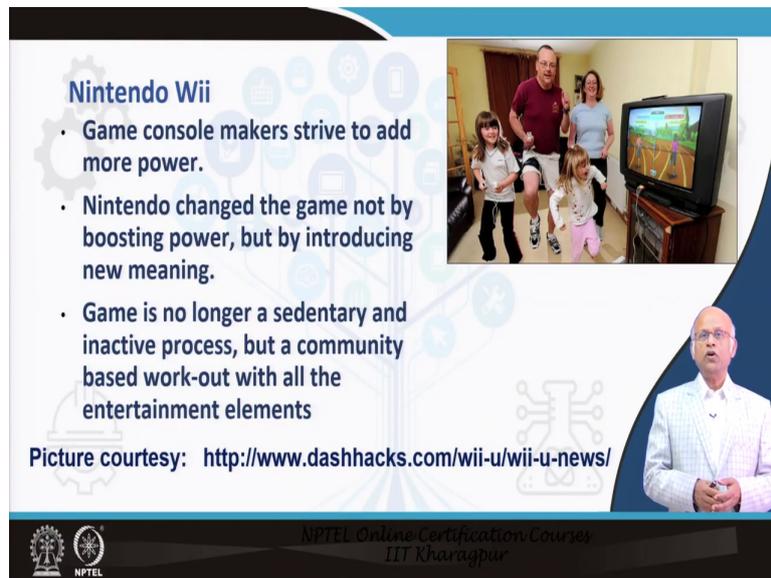
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So, that is how design driven innovation actually helps gaining market acceptance and gaining pricing power as well.

Nintendo Wii is another example. In 2006 they came when market, gaming market was dominated by Microsoft by Sony by some of the big names when Nintendo introduced for the first time in a market place that is dominated by only few players, its very difficult to enter, because they will crush any new entrant. But look how Nintendo actually very easily captured a dominant market share when these big, bigges were there in the marketplace. How they did that?

Game, game is supposed to be a kind of a sedentary activity, when your children is hooked onto your computer screen, they are doing game they do not even listen to what you say. So, they are hooked onto that mentally physically and they have no sense as to what is happening around them and they do not do any exercise which is kind of its not good, many there are fatalities, who are addicted to games. You know what Nintendo days did at this point of time, they redefined the game altogether.

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**Nintendo Wii**

- Game console makers strive to add more power.
- Nintendo changed the game not by boosting power, but by introducing new meaning.
- Game is no longer a sedentary and inactive process, but a community based work-out with all the entertainment elements

Picture courtesy: <http://www.dashhacks.com/wii-u/wii-u-news/>

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They introduced a game, where not only you play a game, but you do exercise. Not only you do exercise its a game that you play with others. Like the grandparents can play a game with grandchildren, parents can play with children or every member in the family can play together. So, game was given a new meaning and its a new experience for everybody.

Now, parents will not tell that their children not to play, they will rather tell them can we play together, why do not you; why do not we play. So, a game that was sedentary has become a means of exercise full of activity, full of you know togetherness and what not.

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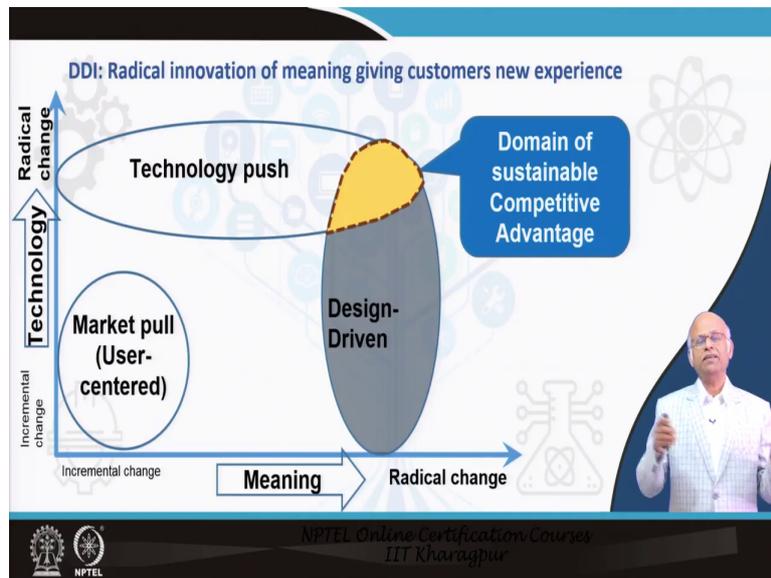
**Design-Driven Innovation**

- Design & Meaning – Innovating meaning that makes sense of things
- Design-Driven Innovation creates unique values - Brand equity, competitive position, and customer loyalty.
- Radical Push (**radical innovation of meaning**) – Rarely pulled by users but is proposed by firms.
- Technological innovation and innovation of meaning – Simultaneously excelling in both is the key.

The slide features a background with various icons including gears, a lightbulb, a tree, a person, and a chemical flask. A presenter in a white suit is visible on the right side of the slide. The NPTEL logo is in the bottom left corner, and the text 'NPTEL Online Certification Courses IIT Kharagpur' is at the bottom center.

So, that is what is design driven innovation. It gives new meaning and then you bring radically new meaning into the product both technology and meaning both should be together, only then your product is going to be a winning product.

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So, y axis is radical change in technology innovation, x axis is radical change in meaning. Where the intersect is the point one should aim to be; that means, that their production have or adopt the best of the technologies, and it must give a new meaning that is radically different compared to whatever is available, only then your product is going to be a winning product.

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**Process of Design-Driven Innovation (DDI)**

- ❖ Listening – gaining access to new knowledge
- ❖ Interpreting (The interpreter) - combining the gathered knowledge with your own insights into a unique proposal
- ❖ Addressing - addressing the proposal via the interpreters, who prepare the people and context.

The slide features a background with a stylized tree of knowledge, a gear, a lightbulb, and a chemical flask. A small inset video shows a man in a white suit speaking. The NPTEL logo and 'NPTEL Online Certification Courses IIT Kharagpur' are visible at the bottom.

Now, how to incorporate that design driven innovation or meaning in a product? You have to listen, you have to listen to your customer. Is customers cannot tell you that I need this experience, but you have to listen to the customer get a handle as to what their aspirations are how they talk, how they eat, how they interact, how they behave etcetera. And then you have to gradually understand as to what can give them that surprise that sense of wellbeing, this is done by interpreter.

Design driven innovation spouse, spouses that you should invite people from all works of life in your design studio. And then let them advise you as to what can be added to this. Boeing, when Boeing design a new aeroplane, they invite people from all works of life even there will be doctors, there will be musician, there will be psychiatrist, there will be whatnot, all kinds of people.

Now, people will see that this is aeroplane, this is all engineering and aeronautics, what a musician will do there a psychiatrist or a doctor will do there. Plane is flying in the sky and anybody can feel you know a sky sick or something or even just the very psychology that I am above the ground and something may happen and what will happen this can give depression.

So, how you can make the interior in a manner that people will be kind of this kind of things will be prevented. Not only that, if you have to give a new experience you have to listen to all kinds of people, even some writers some artists, all people actually can contribute and eventually a meaning new meaning will come that will give new experience to the to the people.

So, interpreter these people are called interpreter and a bunch of them are necessary not as a regular employee, but they should be invited once in a while and they should interact with the design team and then they should brainstorm.

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**Design-Driven Innovation**

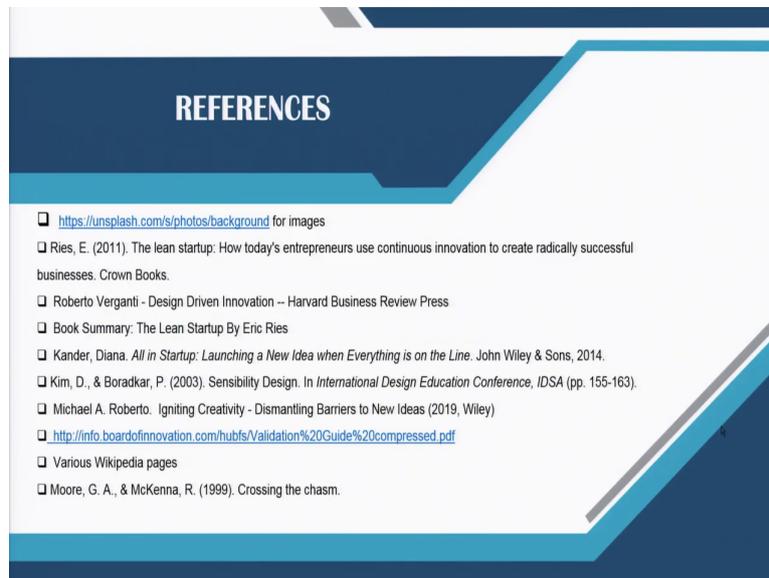
- ❖ Design-Driven Innovation is the strategy about the R&D process for innovating products or services that have **new meanings that customers do not expect but they eventually love**: those that convey new reason for customers to buy them.
- ❖ Products and services resulting out of design-driven innovation process **provide unique sustainable competitive advantages**.

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Design driven innovation is a is definitely is the strategy, this is slightly different than technology innovation. So, it can be; it can be incorporated in both product and service to give new meaning.

Product and services resulting out of design driven innovation provides unique sustainable competitive advantage because you have this handle on the on the mood on the sense of well beingness, the sensibilities the designer sensibility is all incorporated inside.

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So, you get a competitive edge. There are some references the Roberto Verganti the book is available now, so one if anybody wants they can lay their hands on that.

Thank you very much.