

Organizational Design Change and Transformation
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Module - 11
Lecture - 56
Creativity and Design Thinking

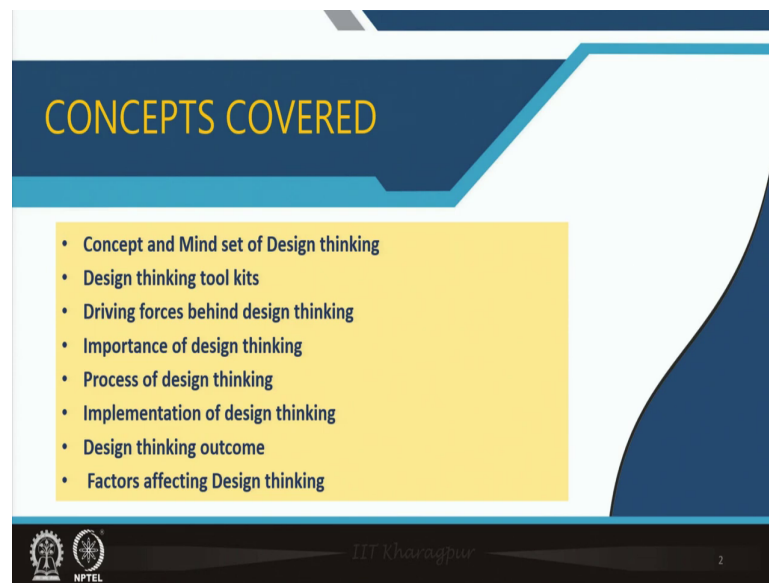
Welcome back to the sessions on Organizational Design Change and Transformation. We are on week 11 where we are extensively discussing about innovations and creativity in organization. We have discussed about innovation, we have discussed about the modules of innovation, we have also discussed about entrepreneurship.

In the last two lecture sessions we have discussed about creativity, we have discussed about creativity and issues related to it like what are the different paradigms of creativity, the measures of creativity. In today's session we are going to focus on a very very new or interesting area of discussion which is about design thinking and creativity.

We are discussing this over here in the like topic areas where we are discussing on organizational design, change and transformation because in order to accommodate and assimilate the design thinking in the organization, organization has to redesign itself. So, that it can give a facilitating environment for design thinking.

In order to understand how to redesign itself in the processes, in the structure, in the human behavior, in the leadership, everywhere. In the technology first we need to understand what is design thinking. So, this lecture we will focus on design thinking, the requirements of it and how organization can prepare itself. So, that it can assimilate design thinking in its environment.

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The slide features a dark blue header with the title 'CONCEPTS COVERED' in yellow. Below the header is a yellow rectangular box containing a bulleted list of eight items. The footer is black and contains the IIT Kharagpur logo, the text 'IIT Kharagpur', and the number '2'.

CONCEPTS COVERED

- Concept and Mind set of Design thinking
- Design thinking tool kits
- Driving forces behind design thinking
- Importance of design thinking
- Process of design thinking
- Implementation of design thinking
- Design thinking outcome
- Factors affecting Design thinking

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So, let us begin. The concepts covered here are concept and mindset of design thinking, design thinking, toolkits, driving forces behind design thinking, importance of design thinking, process of design thinking, implementation of design thinking, design thinking outcomes, factors affecting design thinking.

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Concept of Design Thinking

Design thinking is defined as
"a human-centered innovation process that emphasizes observation, collaboration, fast learning, visualization of ideas, rapid concept prototyping, and concurrent business analysis"
Design is a systematic approach to problem solving.

The slide features a light blue background with various icons: gears, a tree with nodes, an atom, a hard hat, and a circuit board. A presenter in a pink jacket is visible in a video feed on the right. The bottom of the slide includes the IIT Kharagpur and NPTEL logos, the text 'IIT Kharagpur', and a page number '3'.

A concept of design thinking - what is design thinking? Design thinking is defined as a human centered innovation process that emphasizes observation, collaboration, fast learning, visualization of ideas, concept prototyping and concurrent business analysis. Design is a systematic approach to problem solving.

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Mindset of a Design Thinker

Mindsets of a Design Thinker involves the following:

- Think Users First
- Ask the Right Questions
- Believe You Can Draw
- Commit to Explore
- Prototype to Test

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Mindset of a design thinker - Mindset of the design thinker involves the following: Think users first, ask the right questions, believe you can draw, commit to explore, prototype to test.

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The slide, titled "Design Thinking Tool Kit", is presented in a video lecture format. It features a central diagram with two yellow boxes. The left box, labeled "Process", shows a vertical flow: "Need finding" at the top, followed by a downward arrow to "Ideation", and another downward arrow to "Testing". The right box, labeled "Tool", lists five items: "Visualization", "Ethnography", "Prototyping", "Co-creation", "Design of experiments", and "Collaborative sense-making and ideation". The slide is decorated with various icons: gears, an atom, a hard hat, and a circuit board. In the bottom right corner, a small video inset shows a woman in a pink top. The footer includes the IIT Kharagpur and NPTEL logos, the text "IIT Kharagpur", and the number "5".

Design Thinking Tool Kit

Process

Need finding
↓
Ideation
↓
Testing

Tool

- Visualization
- Ethnography
- Prototyping
- Co-creation
- Design of experiments
- Collaborative sense-making and ideation

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The design thinking process starts with need finding, then ideation and then testing. The tools of design thinking are visualization, ethnography, prototyping, co-creation, design of experiments, collaborative sense making and ideation.

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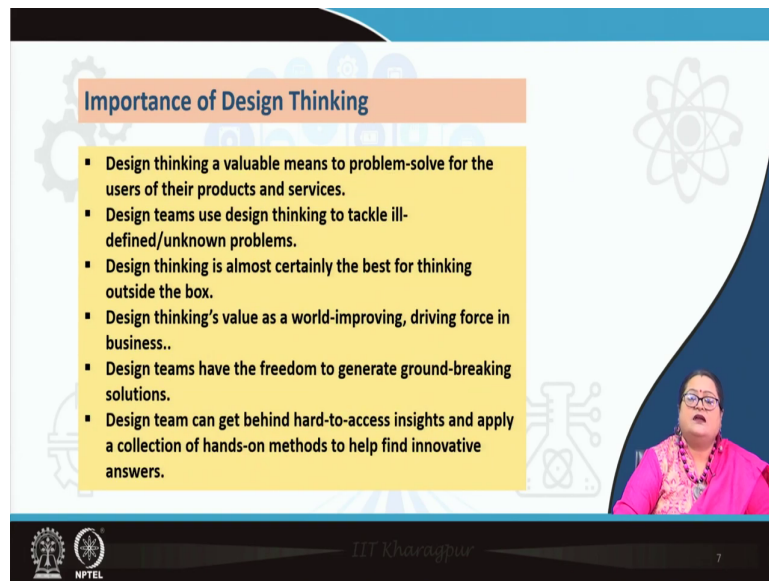
Driving Force Behind Design Thinking

- The biggest driving force is the accelerated rate of change in business and society caused by advances in technology.
- Design thinking minimizes risk, reduces costs, improves speed, and energizes employees.
- Design thinking provides leaders with a framework for addressing complex human-centred challenges and making the best possible decisions

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What are the driving force behind design thinking? The biggest driving force is the accelerated rate of change in business and society caused by advances in technology. Design thinking minimizes risk, reduces cost and improves speed and energizes the employees. Design thinking provides leaders with a framework for addressing complex human centred challenges and making the best possible decisions.

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Importance of Design Thinking

- Design thinking a valuable means to problem-solve for the users of their products and services.
- Design teams use design thinking to tackle ill-defined/unknown problems.
- Design thinking is almost certainly the best for thinking outside the box.
- Design thinking's value as a world-improving, driving force in business..
- Design teams have the freedom to generate ground-breaking solutions.
- Design team can get behind hard-to-access insights and apply a collection of hands-on methods to help find innovative answers.

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Now, what is the importance of design thinking? Design thinking is a valuable means to problem solving for the users of their products and services. Design teams use design thinking to tackle ill-defined or unknown problems. Design thinking is almost certainly the best for thinking outside the box. Design thinkers value as a world-improving driving force in business.

Design teams have the freedom to generate ground-breaking solutions. Design teams can get behind hard-to-access insights and apply a collection of hands-on methods to help to find innovative answers.

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Process of Design Thinking

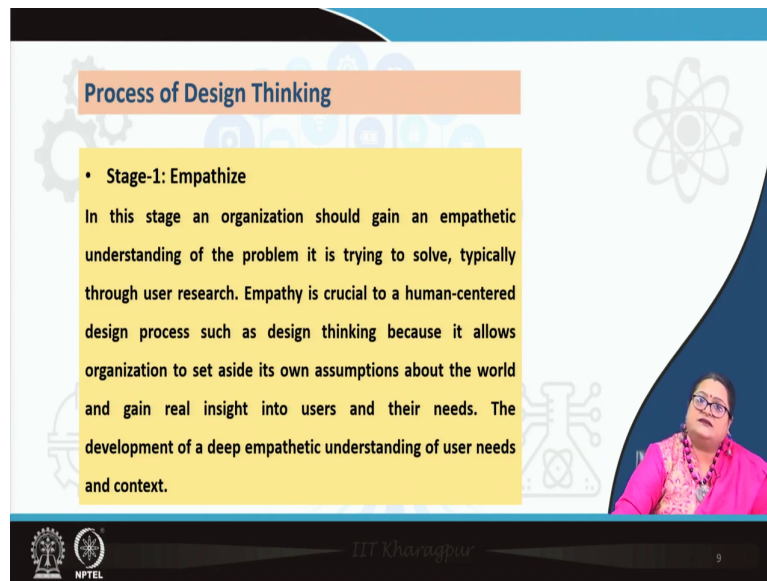
There are five stages in the process of design thinking which are –

- Stage-1: Empathize
- Stage-2: Define
- Stage-3: Ideate
- Stage-4: Prototype
- Stage-5: Test

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Now, what is the process of design thinking? There are five stage in the processes of design thinking like empathize, define, ideate, prototype and test.

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Process of Design Thinking

- **Stage-1: Empathize**

In this stage an organization should gain an empathetic understanding of the problem it is trying to solve, typically through user research. Empathy is crucial to a human-centered design process such as design thinking because it allows organization to set aside its own assumptions about the world and gain real insight into users and their needs. The development of a deep empathetic understanding of user needs and context.

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Empathize: In this stage an organization should gain an empathetic understanding of the problem. It is trying to solve and typically through their user research. Empathy is crucial to a human centred design process such as design thinking because it allows organization to set aside its own assumptions about the world and gain real insight into the users and their needs.

The development of a deep empathetic understanding of user needs and the context. So, you can understand the organization here itself has to start thinking differently about what are the products and how it can be delivered or what nature of product needs to be developed. So, that itself is a transformation in the mindset of the organization.

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Process of Design Thinking

- Stage-2: Define

It's time to accumulate the information gathered during the Empathize stage. The organization then analyze its observations and synthesize them to define the core problems organization and its team have identified. These definitions are called problem statements. The organization can create personas to help keep the organization's effort human-centered before proceeding to ideation. Here the formation of heterogeneous team may be happened in this stage.

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Stage-2 is define. It is time to accumulate the information gathered during empathize stage. The organization then analyze its observations and synthesize them to define the core problems of the organization and its team that have identified. These definitions are called problem statements. The organization can create personas to help keep the organization's effort human centered before proceeding to ideation.

Here the formation of like heterogeneous teams may be very useful because this diversity brings a new ideas of processing the ideas new creativity, new ways of looking at things. So, diversity, heterogeneous teams are very useful whenever we are talking of design thinking.

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Process of Design Thinking

- **Stage-3: Ideate**

In this stage the organization is ready to generate ideas. The solid background of knowledge from the first two phases means it can start to “think outside the box”, look for alternative ways to view the problem and identify innovative solutions to the problem statement it is created. Brainstorming in this stage is very useful. Dialogue-based conversation is happened here in this stage.

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Stage-3 is ideate: In this stage the organization is ready to generate ideas. The solid background of knowledge from the first two phases means that it can start to “think outside the box”. Look at alternative ways to view the problem and identify innovative solutions to the problem statement it has created. Brain storming in this stage is very very useful. Dialogue based conversation is happened here in this stage.

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Process of Design Thinking

- **Stage-4: Prototype**

In this stage there is experiment. The aim is to identify the best possible solution for each problem found. The organization's team should produce some inexpensive, scaled-down versions of the product (or specific features found within the product) to investigate the ideas organization has generated. This could involve simply paper prototype. The generation of multiple solutions are winnowed through experimentation

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Stage 4 is prototype. In this stage there is an experiment. The aim is to identify the best possible solution for each problem found. The organization's team should produce some inexpensive scaled down versions of the product or specific features found within the product to investigate the ideas the organization has generated. This could involve simple paper prototype also. The generation of multiple solutions are winnowed through experiments.

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Process of Design Thinking

- **Stage-5: Test**

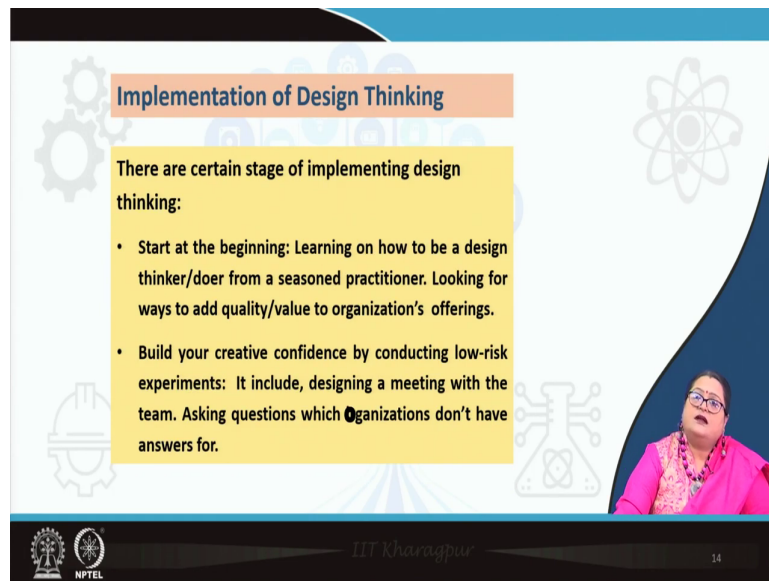
Evaluators rigorously test the prototypes. Although this is the final phase, design thinking is iterative: Teams often use the results to redefine one or more further problems. So, organization can return to previous stages to make further iterations, alterations and refinements – to find or rule out alternative solutions. There is use of structured and facilitated process in this stage.

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Stage 5 is the testing or the test. Evaluators rigorously test the prototypes. Although this is the final phase the design thinking is iterative. Teams often use the results to redefine one or further problems, one or more of the further problems. So, organization can return to previous stages to make further iterations, alterations and refinements to find a rule out alternative solution. There is the use of structured and facilitation process, facilitated process in this stage.

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Implementation of Design Thinking

There are certain stage of implementing design thinking:

- Start at the beginning: Learning on how to be a design thinker/doer from a seasoned practitioner. Looking for ways to add quality/value to organization's offerings.
- Build your creative confidence by conducting low-risk experiments: It include, designing a meeting with the team. Asking questions which organizations don't have answers for.

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Now, the implementation of design thinking: There are certain stage of implementing design thinking. Start at the beginning. Learning on how to be a design thinker or doer from a seasoned practitioner. Looking for ways to add quality value to organizations offerings. Build your creative confidence by conducting low risk experiments. It includes designing a meeting with the team. Asking questions which organizations do not have answers for.

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Implementation of Design Thinking

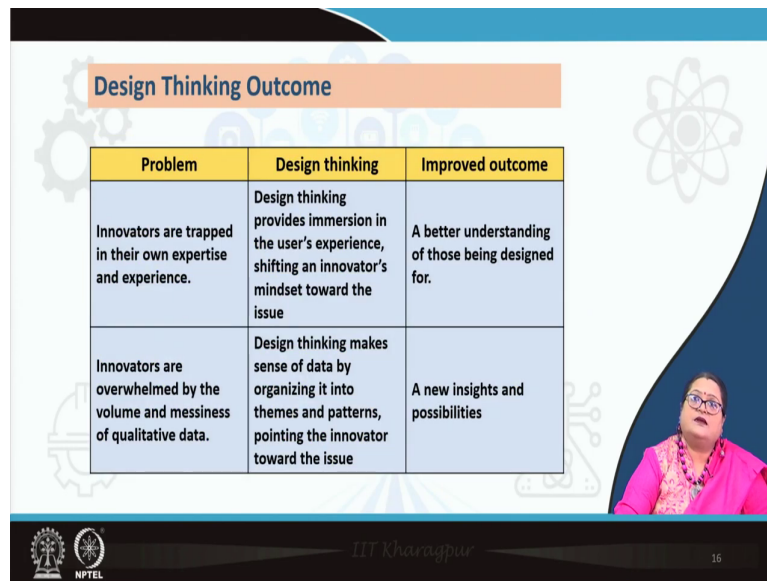
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- Learn how to coach and facilitate for creativity, co-creation and collaboration: This is crucial for creating a safe space for conceptual risk-taking.
- Stay focused on the users' experience.
- Help teams unlock provocative insights, reframe existing problems, and generate ideas in response to on the research.
- Encouraging multiple perspectives: Reframe constraints into opportunities and check assumptions.

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Learning how to coach and facilitate for creativity, co-creation and collaboration. This is crucial for creating a safe space for conceptualizing conceptual risk taking. Stay focused on the user's experience. Health teams unlock provocative insights, reframe existing problems and generate ideas in response to on-the-research. Encourage multiple perspectives, reframe constraints into opportunities and check assumptions.

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The slide features a title 'Design Thinking Outcome' in an orange box at the top. Below it is a table with three columns: 'Problem', 'Design thinking', and 'Improved outcome'. The table contains two rows of text. In the bottom right corner, there is a small video inset of a woman in a pink jacket. The slide also includes logos for IIT Kharagpur and NPTEL at the bottom left, and the number '16' at the bottom right.

Problem	Design thinking	Improved outcome
Innovators are trapped in their own expertise and experience.	Design thinking provides immersion in the user's experience, shifting an innovator's mindset toward the issue	A better understanding of those being designed for.
Innovators are overwhelmed by the volume and messiness of qualitative data.	Design thinking makes sense of data by organizing it into themes and patterns, pointing the innovator toward the issue	A new insights and possibilities

Now, what are the design thinking outcomes? We have listed it in the form of problem, design thinking, improved outcome. Now, problem: Innovators are trapped in their own expertise and experience. Design thinking provides immersion in the user's experience, shifting an innovator's mindset towards the issue.

Improved outcome is the better understanding of those being designed for. Problem is innovators are overwhelmed by the volume and messiness of qualitative data. Design thinking makes sense of data by organizing it into themes and patterns and pointing the innovator towards the issue, a new insights and possibilities.

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Design Thinking Outcome

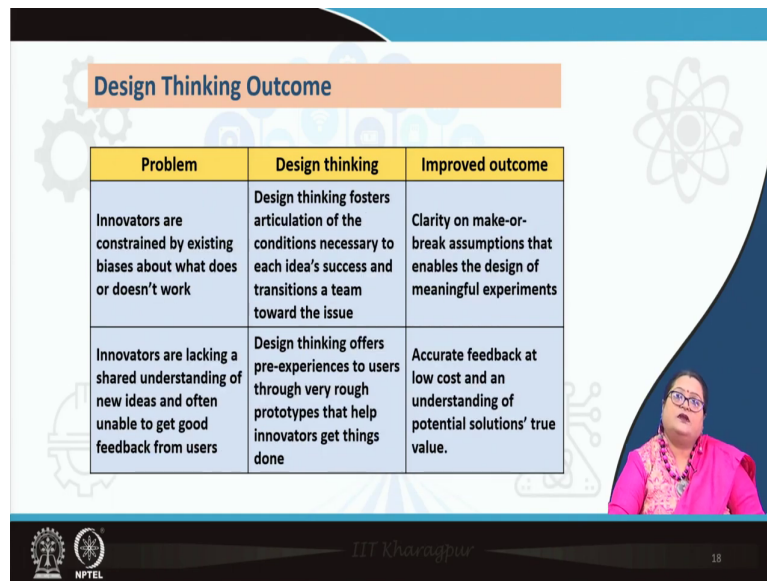
Problem	Design thinking	Improved outcome
Innovators are divided by differences in team members' perspectives.	Design thinking builds alignment as insights are translated into design criteria, moving an innovation team toward the issue	Convergence around what really matters to users.
Innovators are confronted by too many disparate but familiar ideas.	Design thinking encourages the emergence of fresh ideas through a focused inquiry, shifting team members toward the issue	A limited but diverse set of potential new solutions

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Innovators are sometimes divided by differences in team members' perspectives. The design thinking builds alignments as insights are translated into design criteria, moving an innovation team towards the issue. Improved outcome is convergence around what really matters to the users.

The problem is innovators are confronted by too many desperate, but familiar ideas. Design thinking encourages the emergence of fresh ideas through a focused inquiry, shifting team members towards the issue. The outcome is a limited, but diverse set of potential new solutions.

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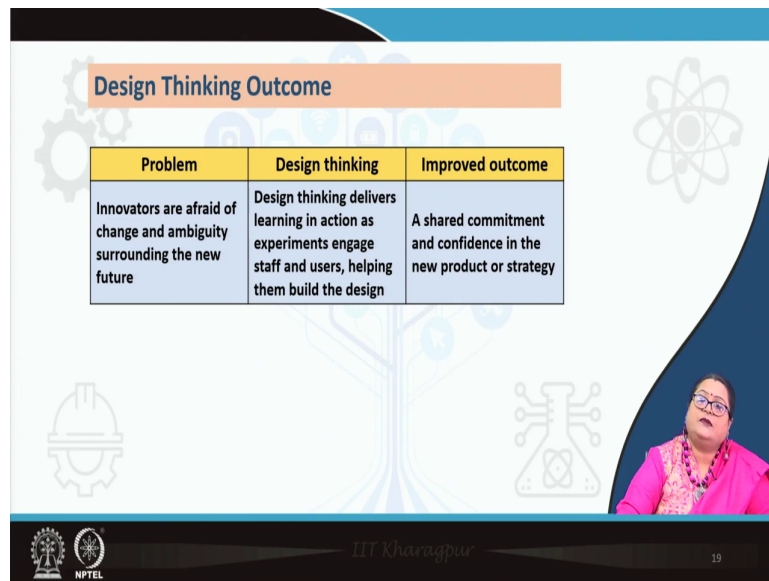
The slide features a title 'Design Thinking Outcome' in an orange box. Below it is a table with three columns: 'Problem', 'Design thinking', and 'Improved outcome'. The table contains two rows of text. In the bottom right corner, there is a small video inset of a woman in a pink shirt. The slide also includes logos for IIT Kharagpur and NPTEL at the bottom.

Problem	Design thinking	Improved outcome
Innovators are constrained by existing biases about what does or doesn't work	Design thinking fosters articulation of the conditions necessary to each idea's success and transitions a team toward the issue	Clarity on make-or-break assumptions that enables the design of meaningful experiments
Innovators are lacking a shared understanding of new ideas and often unable to get good feedback from users	Design thinking offers pre-experiences to users through very rough prototypes that help innovators get things done	Accurate feedback at low cost and an understanding of potential solutions' true value.

The problem is, innovators are constrained by existing biases about what does or does not work. The design thinking fosters articulation of the conditions necessary to each idea's success and transitions a team towards the issue. Improved outcomes is clarity on make or break assumptions that enables the design of meaningful experiments.

Sometimes the problem is, innovators are lacking a shared understanding of the new ideas and often unable to get good feedback from users. Design thinking offers pre-experience to users through very rough prototypes that help innovators get things done. Improved outcomes is accurate feedback at low cost and an understanding of potential solutions through value.

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The slide features a title 'Design Thinking Outcome' in an orange box. Below it is a table with three columns: 'Problem', 'Design thinking', and 'Improved outcome'. The background includes icons of gears, a hard hat, a circuit board, and an atom. A presenter in a pink top is visible in the bottom right corner. The footer contains the IIT Kharagpur and NPTEL logos, the text 'IIT Kharagpur', and the number '19'.

Problem	Design thinking	Improved outcome
Innovators are afraid of change and ambiguity surrounding the new future	Design thinking delivers learning in action as experiments engage staff and users, helping them build the design	A shared commitment and confidence in the new product or strategy

The problem could be, innovators are afraid of change and ambiguity surrounding the new future. Design thinking delivers learning in action as experiments engage staff and users helping them to build the design. Improved outcomes is a shared commitment and confidence in the new product or strategy.

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Factors affecting Success of Design Thinking

The factors affecting success can be put down as follows:

- **Leadership:** Linking design thinking initiatives to the strategic goals. Providing direction, resources, and commitment.
- **People:** Enabling champions to lead the change through successful lighthouse projects. Building up an internal design thinking community where best practices are shared.

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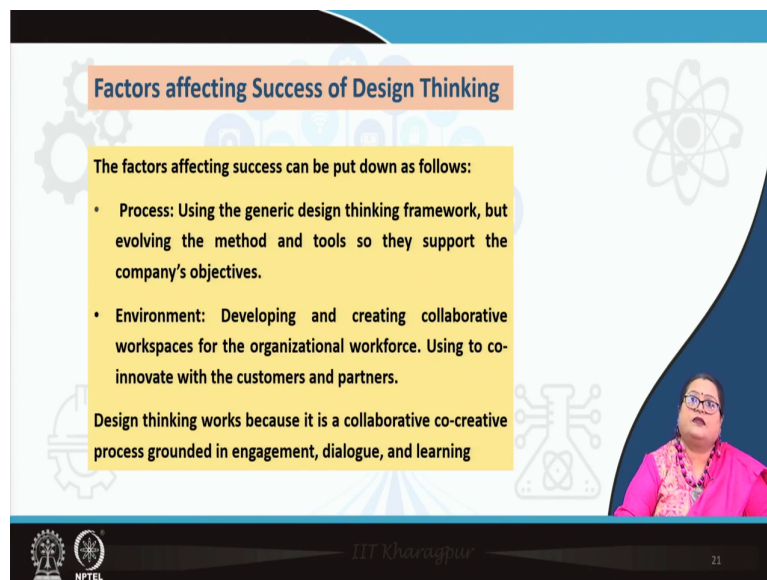
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So, as you understand, like it is a collaborative approach where it is a change of mindset of the innovators to first look into the user's perspective, empathize with the users, like do a lot of brainstorming thing like idea exchange with the teams, building up prototypes, testing it. So, the organization system, the environment of the organization needs to be flexible enough. The structure of the organization needs to be flexible enough.

The physical space, the design of the organization, physical design of the organization needs to be flexible enough which is focused towards like the activity based design. So, let us see what are the factors, which are affecting success of the design thinking. First of course, is the leadership: Linking design thinking initiatives to the strategic goals, providing direction, resources and commitment.

People: Enabling champions to lead the change through successful lighthouse projects.
Building up an internal design thinking community where best practices are shared.

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Factors affecting Success of Design Thinking

The factors affecting success can be put down as follows:

- **Process:** Using the generic design thinking framework, but evolving the method and tools so they support the company's objectives.
- **Environment:** Developing and creating collaborative workspaces for the organizational workforce. Using to co-innovate with the customers and partners.

Design thinking works because it is a collaborative co-creative process grounded in engagement, dialogue, and learning

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Processes using the generic design thinking framework, but evolving the methods and tools. So, they support the companies objectives. So, the if you understand in this way the performance management has to be redesigned, the reward system has to be redesigned. So, all has to be looked in a different perspective from the like. So, that it can assimilate, it can facilitate the design thinking in the organization.

Environment, developing and creating a collaborative workspaces for the organization's workforce using to co-innovate with the customers and partners. So, one of the physical design could of the workspace is activity based design which not just this design thinking.

Design thinking works because it is a collaborative co-creative process grounded in engagement, dialogue and learning.

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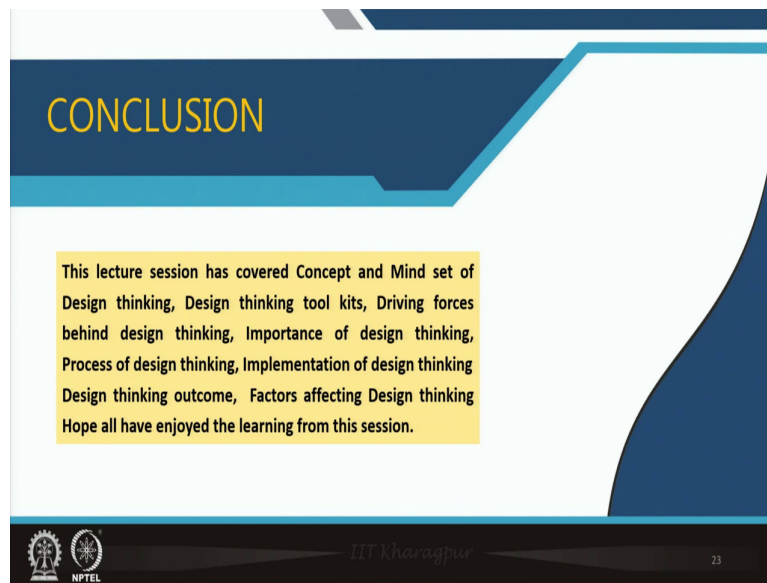
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These are the references that we have used for these slides.

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CONCLUSION

This lecture session has covered Concept and Mind set of Design thinking, Design thinking tool kits, Driving forces behind design thinking, Importance of design thinking, Process of design thinking, Implementation of design thinking Design thinking outcome, Factors affecting Design thinking Hope all have enjoyed the learning from this session.

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In conclusion we can tell this session has covered the concept and mindset of design thinking, design thinking toolkits, driving forces behind design thinking, importance of design thinking, process of design thinking, implementation of design thinking, design thinking outcomes, factors affecting design thinking, hope all have enjoyed the learning from this session.

In week 12 we are going to focus on the organizational turnaround and transformation strategies and we are going to discuss the third generation of Organizational Development Techniques.

Thank you. Bye bye till then.