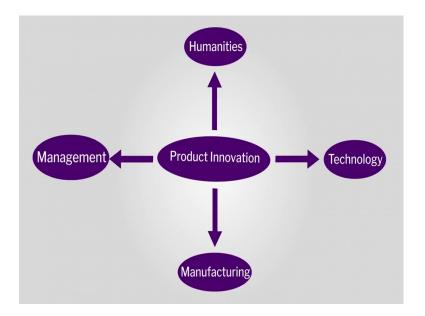
Understanding Design Prof. B K Chakravarthy Prof. Nani Sabnani Department of Industrial Design Centre School of Design Indian Institute of Technology, Bombay

Module – 07
Start of Section 3
Lecture – 39
Pitfalls of innovation

Design driven innovation is often the result of team effort.

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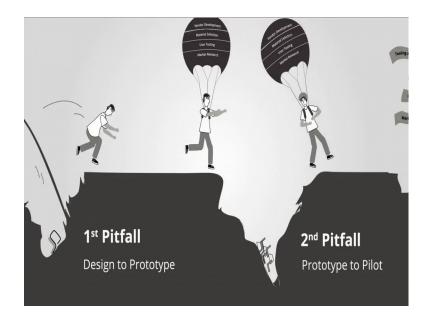


It brings together a range of disciplines, humanities, technology, manufacturing, to management. Teams have to be built on the basis of the type of problems being addressed.

You are speaking of collaboration in design which was the topic we discussed in this course last time.

Yes, collaboration is the name of the game today, every designer who wants to take their design to the people must know about the perilous pitfalls of design innovation.

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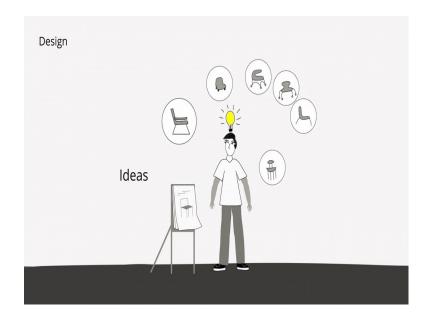
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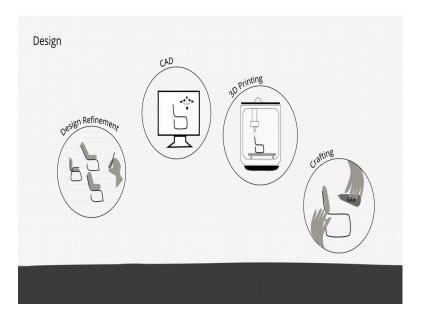
The pitfalls of design innovation.

This landscape shows us the path of product from idea to large scale deployment. You can see 3 canyons or pitfalls which spell danger when an idea could fall in and fail before it gets anywhere. In the first stage, the designer is taking his idea from a mock up to a prototype which can be tested with users.

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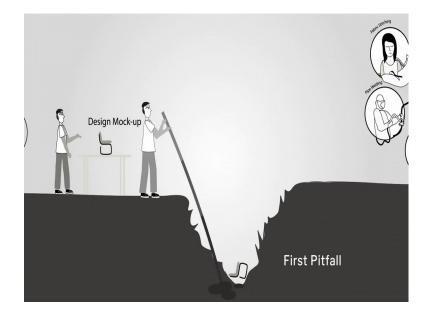


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The collaborators could be social scientists, material experts technologists and so on.

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If things are satisfactory at this stage our idea is able to make the leap across the pitfall to becoming a working prototype.

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At this stage the designer's role is say 70 percent of the total work.

So, we have moved now from the mock up to prototype and crossed the first pitfall.

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Yes, now the prototype needs to be tested with users and refined and worked further. The designers take input from different collaborators to take the idea from prototyping to pilot production.

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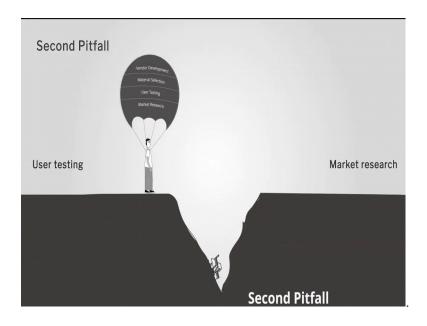
Here the collaborators could be from user experience, market research, manufacturing and other related areas depending upon the type of product or service.

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By this time the designers' role has shrunk to say 50 percent of the total effort.

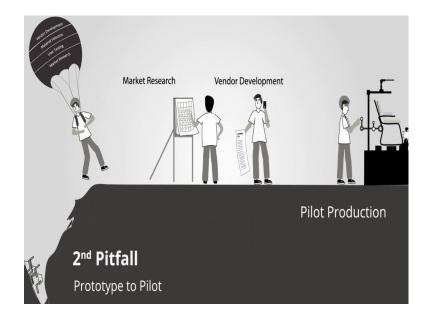
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So, now we have safely crossed the second pitfall.

Now, the challenge grows harder with large number of user trials and more inputs from users.

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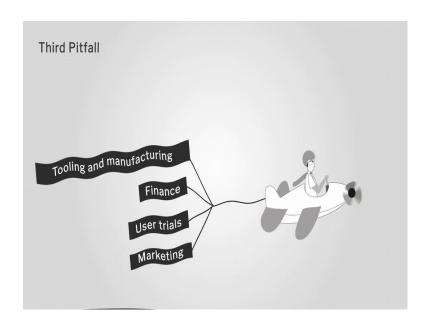


In this stage the collaborators are tool engineers, product planners, manufacturing experts and most importantly, the financers. Now, the designer's involvement has shrunk to say 20 percent.

But not the intensity of the involvement.

Of course not the designer has to champion the cause till the product reaches the marketplace.

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I noticed that each successive pitfall indicates a deeper fall in case of failure.

Obviously so because the further into the process we are there is so much more at stake in terms of cause and resources. And if the designer's idea slips into one of the pitfalls the idea itself could be lost forever or the project timeline will go very large. So, like this adventurer, the designer needs some out of the box thinking tools and a lot of technical help from other domains in order to leapfrog these pitfalls to critical junctures in the innovation process.

Every designer's nightmare indeed.

But the nightmare can be avoided with design thinking and early planning.

Design thinking for innovation, we need to talk more about this.

You know, the hurdles in the path of a designer are many. Every product presents a unique set of challenges to begin with and may throw up several unanticipated challenges all along the way. The contributions of a wide variety of experts may be needed before the product can see the light of the day. The designer has to play a significant role at every stage negotiating between different teams.

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The process of collaboration can be said to be a success when the innovation and design processes go through all the stages in the landscape. From the germ of an idea to an actual functioning product.