

Design Thinking: Meaning and Application



[Center for Study of Science, Technology and Policy](#)

Follow

[Sep 9](#) · 4 min read

By Bhawna Welturkar, Visual Communication Officer, CSTEP.

To a layperson, the concept of ‘design’ is mostly limited to the visual and functional aspects of a product, with the former often taking precedence over the latter. When talking about the design of a product, we generally refer to how it looks, and sometimes, to how it functions. Naturally then, we understand ‘design thinking’ to be associated with the thinking that goes into the designing of a product. While this is true, it does not bring out the complete meaning of design thinking or its application potential.

What is design thinking and why is it popular?

Design thinking can be defined as the process of designing solutions to problems, using creative and critical thinking. Simply put, it is an approach to solve a problem, and consists of both — ways of thinking and working, as well as a collection of hands-on methods.

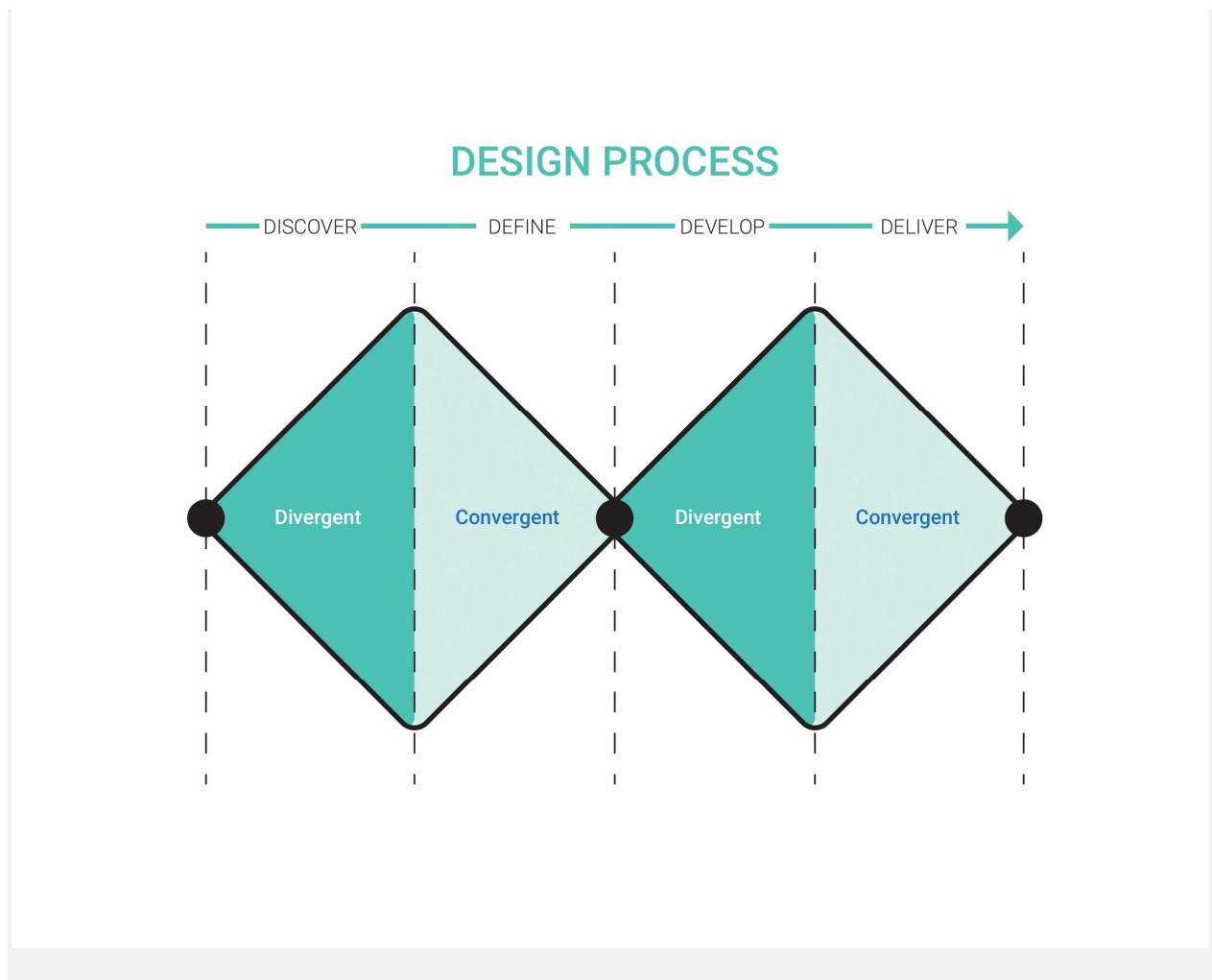
Deep diving into the design process of a product or service design can elaborate the wider application of design thinking in any problem-solving scenario. This can be done by

practicing different approaches to solve a problem. For example, a person who wants to travel outstation during the lockdown can apply design thinking to *design* the most inexpensive and fastest way of travelling without the interference of official authorities.

The remarkable ability of design thinking to solve complex problems has prompted some of the world's leading brands, such as Apple, Google, Samsung, and GE, to adopt it. The growing need to create something new and disruptive has made design thinking even more sought after. It is now being taught at leading universities around the world, including Stanford d.school, Harvard, and MIT. Recently, India announced the inclusion of design thinking [in the CBSE curriculum](#) (from grade 11), from the academic year 2020–2021.

Simplifying the design process

Broadly, the design process has four stages — Discover, Define, Develop, and Deliver. This process, also called the 'Double Diamond Process', involves a blend of [convergent and divergent thinking](#). Depending on the expected output, we can decide if we should think convergently or divergently.



For example, while brainstorming, divergent thinking helps bring out new and wild ideas. Here, the need is to have a greater number of ideas, hence the process widens. Likewise, to narrow down ideas into practical solutions, convergent thinking is applied as it helps evaluate the specific ideas in a more evident manner.

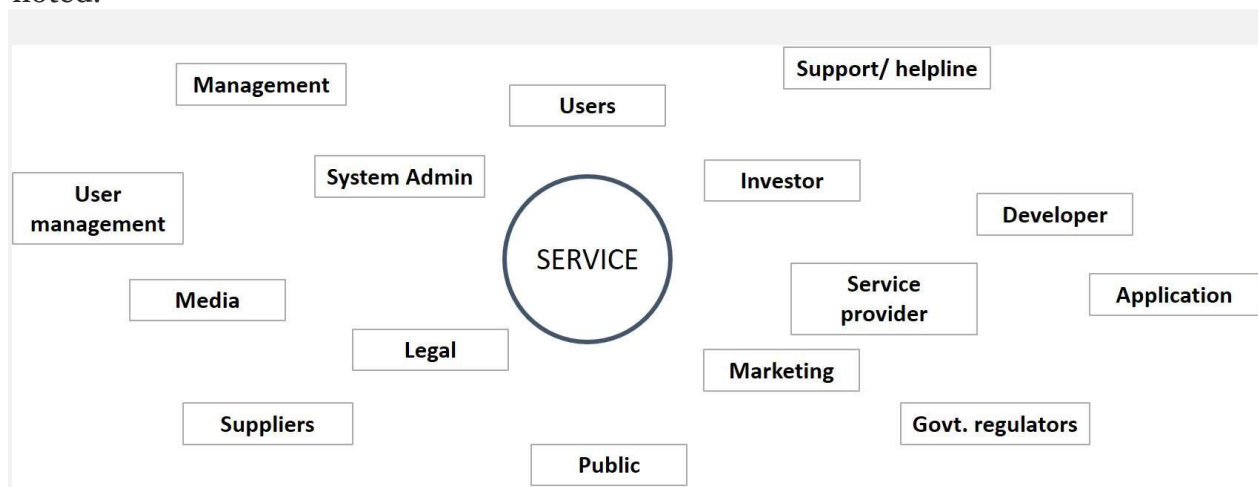
The human brain consists of the left and right brain, and each works differently. While the left brain is dominated by logic and intelligence, the right brain is emotional and creative. Design thinking brings out the best of both through a unique blending of divergent (creative) and convergent (intellectual) thinking.

Application and methods of design thinking

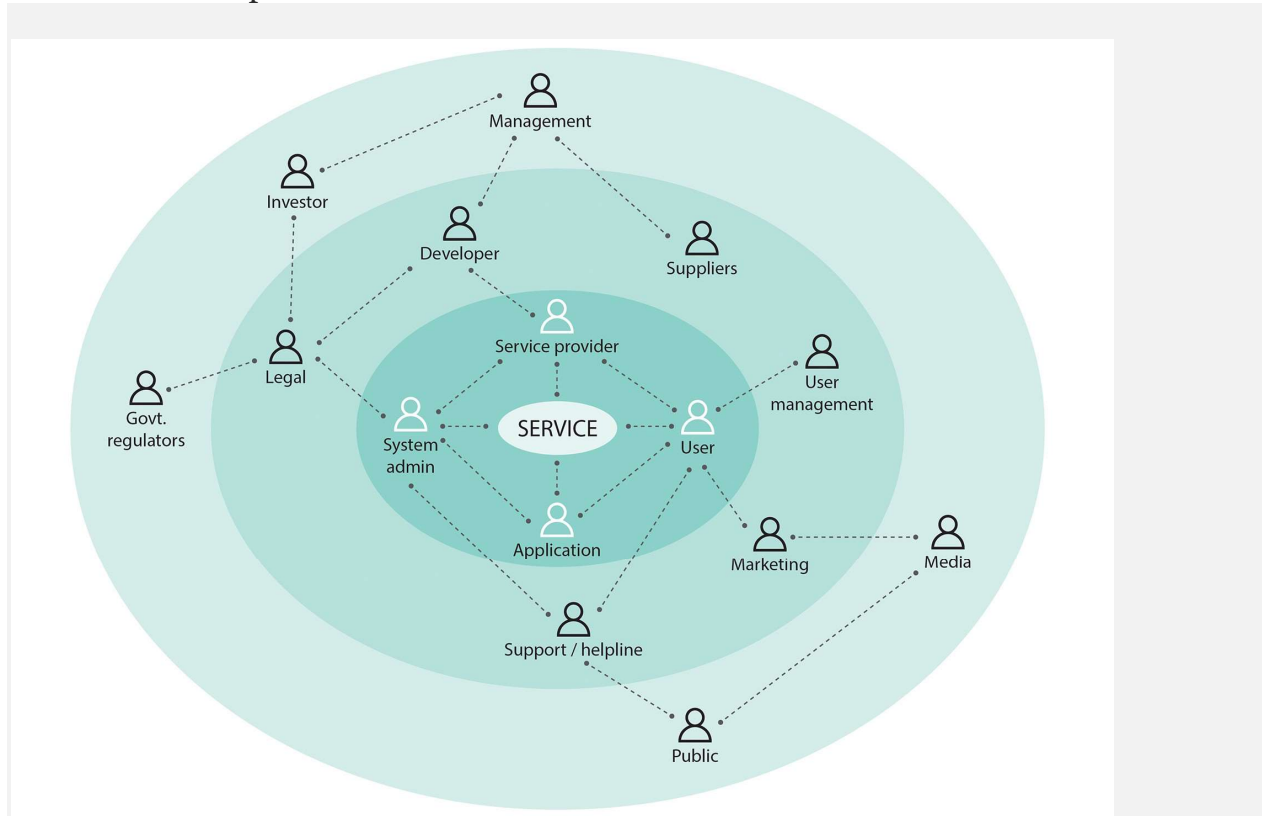
Design thinking is for anyone who seeks to infuse it into any/every level of an organisation, product, or service, to drive new alternatives for business and society. It is being increasingly recognised that design thinking can transform organisations by unleashing people's creativity, winning their commitment, and radically improving processes.

There are methods, also known as 'design sprints', which help apply design thinking in an interesting and engaging way. These methods can be applied in any scenario, such as gathering information, getting to know the stakeholders, arriving at insights, etc. You can find the toolkits for some of the methods at [these sites](#). As an example, one of the methods is elaborated below to validate its ease of application.

Actors map – It is a relationship map which places the actors/stakeholders in the given context, on the basis of their role and how they affect the context. This can be used to understand the context and the stakeholders, and frame insights. For example, in a service sector, every possible actor related directly or indirectly to the service can be noted.



The next stage is to arrange these actors on the basis of their relationship with the core context. Grouping can be done as core, direct, and indirect influencers, or primary, secondary, and tertiary group. This results in a network diagram showing a clear picture of the relationships of one actor with the others.



Such mapping provides clarity on how an intervention with any actor can directly or indirectly affect the other actors. This method is useful in building strategies, and optimising resources in an organisation, system or service.

Getting hands-on experience

An apt understanding of the benefits of design thinking can be effected only by adopting it into the chosen methodology. For instance, one of the ways of applying actors map can be in developing a mobile application. If the developer considers an inclusive feature for

visually-impaired users, it will affect other actors, reflecting in an expanded user group, enhanced marketing strategies, and an opportunity for more profit to the company. The company will, thus, receive valuable foresight, enabling it to take better decisions on any intervention.

The takeaway

Design Thinking offers a range of problem-solving, innovation-focussed activities and processes that can be leveraged for solutions to broader problems. The accomplishments of design thinking for social innovation have been one of most talked about, with impressive success stories like [the Jeevan bindi or lifesaving dot](#) and the [lucky iron fish](#). Undoubtedly, its adoption can lead to real-world solutions that create better outcomes for organisations and the people they serve.

The author is Visual Communication Officer at CSTEP and may be contacted on @welbhawna on Twitter.