

Design Thinking

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Definition

Design thinking encompasses the cognitions, processes and tools that aim to describe how designers think and work in the creation of desired futures.

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Design thinking encompasses the cognitions, processes and tools that aim to describe how designers, and any individual with a design attitude, think and work in the creation of desired futures. The definition and what comprises design thinking is in constant flux and expansion and no single definition represents the wealth of discussion that has taken place over the years since the term became part of the collective consciousness of design researchers (Rowe 1987).

Strategy Problems as Design Problems

Simon (1969) recognized the centrality of design in applied disciplines such as engineering, medicine, business and architecture since they are concerned not with how things are but with how they might be. Indeed, of key significance is the elaboration of design as the approach for addressing 'ill-structured' and 'wicked problems' (Simon 1969; Rittel and Webber 1973), where the problem itself is subject to multiple interpretations and potential solutions are many, with none of them able to be proven to be correct. Strategy problems as problems requiring a design approach have been elaborated in, for example, Liedtka and Mintzberg (2006) and Martin (2009). Rumelt (2011) uses the design metaphor to clarify that effective strategies are designs rather than decisions – that is, they are constructed rather than chosen – and, therefore, master strategists are designers more than decision makers.

The Tenets of Design Thinking: Cognitions, Processes and Tools

Despite the fact that the definition and what comprises design thinking are in constant flux and expansion, there have been several key tenets of design thinking that have become widespread and are now to a large extent accepted. These include

(1) abduction, as the process of forming an explanatory hypothesis of 'what might be' and is the only logical operation which introduces any new ideas, as opposed to deductive and inductive reasoning (Charles Peirce, cited in Hoffmann 1997); (2) framing, to describe a problematic situation in alternative ways; (3) user centricity, as the empathic understanding of users based on fieldwork research; (4) designing as a process of knowledge development that includes both analytic and synthetic elements that operate both in theoretical and practical realms; (5) prototyping as the means by which designers communicate the rationales of their design decisions and perform hands-on experimentation, visualization and evolutionary learning, made as simple as possible to stimulate reflections and obtain useable feedback. Design thinking has also been explored as a humanistic art addressing the design of systems, so as a process of argumentation rather than merely analysis and synthesis (Buchanan 1992). Other processes and tools of designers particularly relevant to strategy formulation are reflective practice (Schön 1983) and the use of metaphors and analogies in strategic conversations. Extensive discussions of design thinking tools for strategy formulation are elaborated in both Liedtka and Olgivie (2011) and Fraser (2012).

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