

# 7. Web Dev Topic: Design Thinking

## What is Design Thinking?

Design Thinking is a way of approaching problem-solving as designers that focuses on the users who will use what we design. For us, the objects designed include websites, interactive experiences, and mobile apps to name a few.

As we move into our final project together, spanning the four weeks following this module, you will be asked to follow some Design Thinking practices and methodologies introduced on the site Design Kit found at <http://www.designkit.org/> [\(http://www.designkit.org/\)](http://www.designkit.org/).

For this week's web development topic, please continue reading below to learn more about the history of Design Thinking. You will be asked to watch a video introducing the Human-Centered Design methodology at the heart of Design Thinking.

## History of Design Thinking

Wikipedia captures the history of the ideas behind Design Thinking in these words:

The notion of design as a "way of thinking" in [the sciences](https://en.wikipedia.org/wiki/Science) [\\_ \(https://en.wikipedia.org/wiki/Science\)](https://en.wikipedia.org/wiki/Science) can be traced to [Herbert A. Simon](https://en.wikipedia.org/wiki/Herbert_A._Simon) [\\_ \(https://en.wikipedia.org/wiki/Herbert A. Simon\)](https://en.wikipedia.org/wiki/Herbert_A._Simon)'s 1969 book *The Sciences of the Artificial*,<sup>[2]</sup> [\\_ \(https://en.wikipedia.org/wiki/Design\\_thinking#cite\\_note-simon\\_1969-2\)](https://en.wikipedia.org/wiki/Design_thinking#cite_note-simon_1969-2) and in [design engineering](https://en.wikipedia.org/wiki/Design_engineering) [\\_ \(https://en.wikipedia.org/wiki/Design\\_engineering\)](https://en.wikipedia.org/wiki/Design_engineering) to Robert McKim's 1973 book *Experiences in Visual Thinking*.<sup>[3]</sup> [\\_ \(https://en.wikipedia.org/wiki/Design\\_thinking#cite\\_note-mckim\\_1973-3\)](https://en.wikipedia.org/wiki/Design_thinking#cite_note-mckim_1973-3) Peter Rowe's 1987 book *Design Thinking*, which described methods and approaches used by architects and urban planners, was a significant early usage of the term in the design research literature.<sup>[4]</sup> [\\_ \(https://en.wikipedia.org/wiki/Design\\_thinking#cite\\_note-rowe\\_1987-4\)](https://en.wikipedia.org/wiki/Design_thinking#cite_note-rowe_1987-4) [Rolf Faste](https://en.wikipedia.org/wiki/Rolf_Faste) [\\_ \(https://en.wikipedia.org/wiki/Rolf Faste\)](https://en.wikipedia.org/wiki/Rolf_Faste) expanded on McKim's work at [Stanford University](https://en.wikipedia.org/wiki/Stanford_University) [\\_ \(https://en.wikipedia.org/wiki/Stanford University\)](https://en.wikipedia.org/wiki/Stanford_University) in the 1980s and 1990s,<sup>[5]</sup> [\\_ \(https://en.wikipedia.org/wiki/Design\\_thinking#cite\\_note-faste\\_1993-5\)](https://en.wikipedia.org/wiki/Design_thinking#cite_note-faste_1993-5) [\\_ \(https://en.wikipedia.org/wiki/Design\\_thinking#cite\\_note-faste\\_1994-6\)](https://en.wikipedia.org/wiki/Design_thinking#cite_note-faste_1994-6) teaching "design thinking as a method of creative action."<sup>[7]</sup> [\\_ \(https://en.wikipedia.org/wiki/Design\\_thinking#cite\\_note-7\)](https://en.wikipedia.org/wiki/Design_thinking#cite_note-7) Design thinking was adapted for business purposes by Faste's Stanford colleague [David M. Kelley](https://en.wikipedia.org/wiki/David_M._Kelley) [\\_ \(https://en.wikipedia.org/wiki/David M. Kelley\)](https://en.wikipedia.org/wiki/David_M._Kelley), who founded [IDEO](https://en.wikipedia.org/wiki/IDEO) [\\_ \(https://en.wikipedia.org/wiki/IDEO\)](https://en.wikipedia.org/wiki/IDEO) in 1991.<sup>[8]</sup> [\\_ \(https://en.wikipedia.org/wiki/Design\\_thinking#cite\\_note-8\)](https://en.wikipedia.org/wiki/Design_thinking#cite_note-8) [Richard Buchanan](https://en.wikipedia.org/wiki/Richard_Buchanan_(academic)) [\\_ \(https://en.wikipedia.org/wiki/Richard Buchanan \(academic\)\)](https://en.wikipedia.org/wiki/Richard_Buchanan_(academic))'s 1992 article "Wicked Problems in Design Thinking" expressed a broader view of design thinking as addressing intractable human concerns through design.<sup>[9]</sup> [\\_ \(https://en.wikipedia.org/wiki/Design\\_thinking#cite\\_note-buchanan\\_1992-9\)](https://en.wikipedia.org/wiki/Design_thinking#cite_note-buchanan_1992-9)

[https://en.wikipedia.org/wiki/Design\\_thinking](https://en.wikipedia.org/wiki/Design_thinking) [\\_ \(https://en.wikipedia.org/wiki/Design\\_thinking\)](https://en.wikipedia.org/wiki/Design_thinking)

Our story begins in the San Francisco Bay Area, on the peninsula around Palo Alto, where the IDEO design firm started and continues to have its global headquarters today. David Kelley's firm has developed and propagated the methodologies and practices of human-centered design over the course of the past 25 years. In 2011, IDEO incubated IDEO.org — a registered nonprofit focused on applying human-centered design to alleviate poverty. IDEO.org, in turn, published for free use the approach and tools for using human-centered design at Design Kit, <http://www.designkit.org/> [\(http://www.designkit.org/\)](http://www.designkit.org/).

## Human-Centered Design in Two Minutes (or Less)

Please view the short video presentation and the accompanying text found on the Design Kit site about human-centered design. The video can be found at <http://www.designkit.org/human-centered-design> [\\_ \(http://www.designkit.org/human-centered-design\)](http://www.designkit.org/human-centered-design).

## The Stages of Human-Centered Design

The methodology of human-centered design, as defined at the Design Kit site, identifies three phases of work, with iteration in each phase. Explore the practices and methods for each of the phases at the Design Kit site. You will be asked to discuss three specific methods for this week's required discussion, which covers Design Thinking and human-centered design.

### Stage 1: Inspiration

During the inspiration phase, you define your design challenge – what are you trying to create? Refine your idea by conducting user research including interviews and other techniques.

### Stage 2: Ideation

During the ideation phase, distill learnings from your inspiration research – what are the opportunities for design solutions? Prototype your design ideas

quickly and iterate.

## Stage 3: Implementation

During the implementation phase, build the final solution. Continue to conduct user testing and iterate refinements.