

# Understanding Innovation

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Editors

# Design Thinking Research

Looking Further: Design Thinking Beyond  
Solution-Fixation

 Springer

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# Foreword

Complexity grows ubiquitously in our world, and the resultant challenges are impossible to ignore. New developments in digital technologies often suggest and frequently demand making changes—sometimes radical—to how products, tools, and services could or should function, how we collaborate and interact with customers and partners, and how we organize processes and business. In order to move forward effectively, it is necessary for us to think differently, departing from habitual and traditional ways of thinking. Design thinking has been adopted and practiced by individuals and organizations in increasing numbers as a powerful framework to foster innovation in products, services, and operations, and more recently on strategy and creating cultures of innovation.

As interest and experience in design thinking have grown, as well as its application to new and diverse challenges, there is an increasing need to deepen our understanding of how and why design thinking works: what are the factors that make it more successful than other approaches, and what are the reasons it can fail? These are among the driving questions that fuel my continuous interest and support for meticulous and conscientious research in the field through the Hasso Plattner Design Thinking Research Program, a research initiative conducted jointly by the Hasso Plattner Institute of Design at Stanford University in California and the Hasso Plattner Institute (HPI) for Digital Engineering in Potsdam, Germany.

Over the course of nearly ten years of groundbreaking research, our understanding of design thinking has broadened and deepened in an unprecedented manner. Since the implementation of the Design Thinking Research Program in 2008, researchers on two continents have conducted over 100 studies examining, detailing, and making sense of design thinking in its many forms. We now have an estimable body of new knowledge concerning team dynamics, the characteristics and mechanisms of effective design thinking tools, and the application of design thinking in organizational contexts. New tools and methods based on the knowledge and insights created by the program are laying a foundation for informed, empirically based practice that yields greater impact. It is incumbent upon the research community to channel the new

knowledge we have created into improved content for teaching and learning design thinking in all HPI communities.

New discoveries and insights, newly developed approaches, and tools in design thinking should be available to all who seek to advance, drive, and support innovation and innovative culture for organizations or for individuals making social and cultural change. In light of this, it is essential for new design thinking knowledge and content—studies, workshops, frameworks, exercises, and tools—to be available and accessible to students and professionals, to experts, and to those just starting out.

Last year the tenth anniversary of the founding of the School of Design Thinking at Hasso Plattner Institute in Potsdam was celebrated at the second d.confestival. Scholars of the Design Thinking Research Program complemented the festivities by running an enthusiastically attended “Design Thinking Research Lab” in the event space. Here, visitors learned not only about new contributions to and insights into design thinking, but also about how research is conducted and why it is a force of relevant change in our communities.

At this moment, you hold in your hands another way of bringing our findings to innovators everywhere: the ninth volume of our series on design thinking research presents the comprehensive collection of research studies carried out by scholars of both the Hasso Plattner Institute in Potsdam and at Stanford University. In addition to providing the findings of recent projects, this volume presents a thought-provoking historical perspective on design thinking as a creative practice. Now in its second funding period, the Design Thinking Research Program has cultivated a diverse and growing community that gives place to rich exchanges between current doctoral candidates, alumni, researchers, and practitioners from a myriad of disciplines. These exchanges bring new perspectives, depth, and lasting value to not only the program and to its researchers, but to design thinking itself.

The synthesis of multiple perspectives—which results from teams of people from diverse disciplines, from research and from practice, collaborating on the same, often wicked challenge—constitutes one of the fundamental benefits of design thinking. In this enterprise of design thinking research, we encourage you to reach out and invite curious innovators of all kinds to work together, to experiment and learn, and to focus on broadening and deepening our practice and understanding of design thinking and the impact it can bring to benefit the world.

Palo Alto, CA  
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