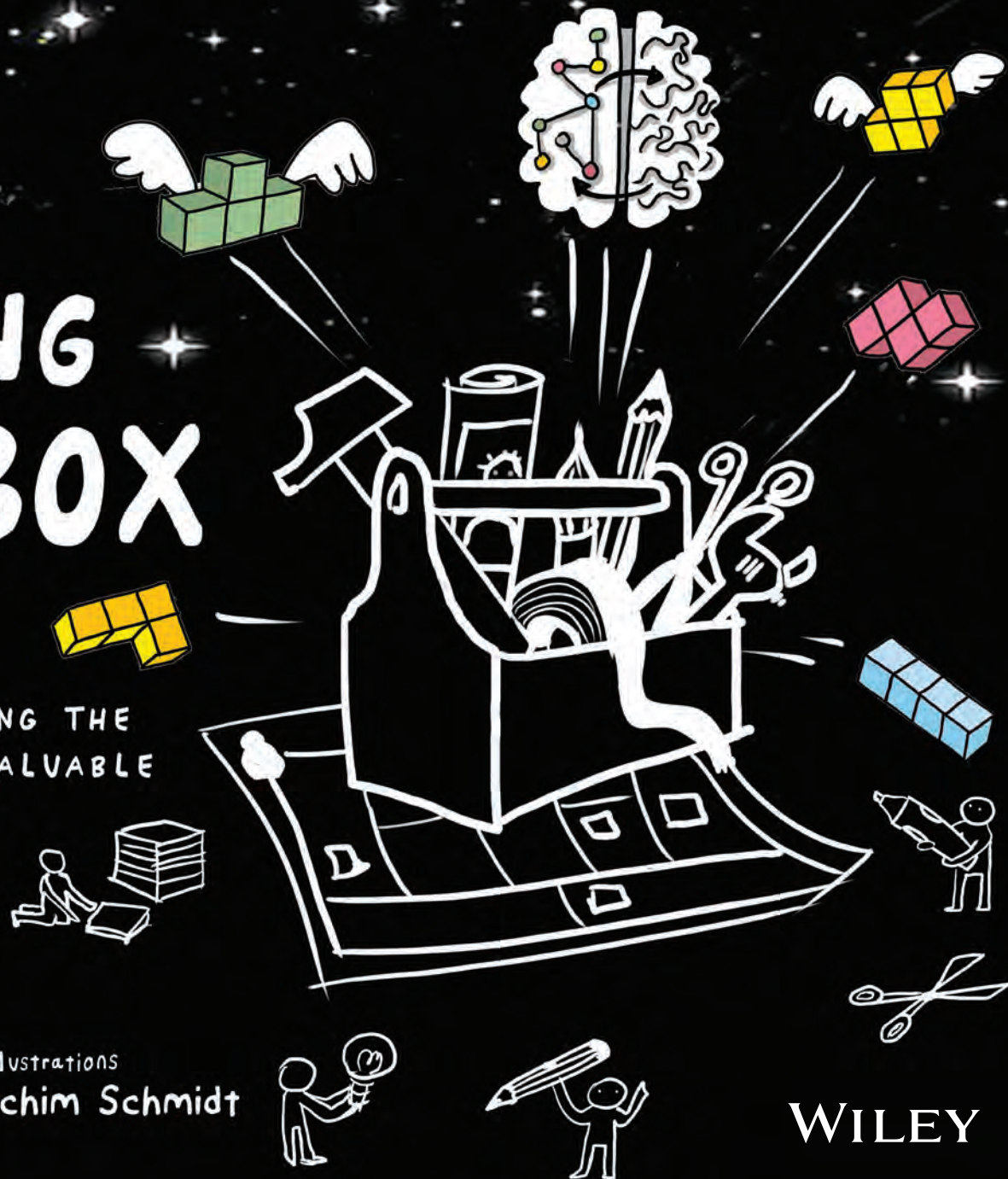


THE DESIGN THINKING TOOLBOX

A GUIDE TO MASTERING THE
MOST POPULAR AND VALUABLE
INNOVATION METHODS

Michael Lewrick
Patrick Link
Larry Leifer

Illustrations
Achim Schmidt



WILEY

Tools Quickfinder Matrix	Page	Understand	Observe	Point of view	Ideate	Prototype	Test	Reflect	Examples of tools applied over a typical design cycle of 1 day up to 14 weeks				Your favorite tools for various workshops/projects				
									1 day	2-3 days	4-7 days	14 weeks	days	days	days	days	days
Problem statement	49	●	○	○					✓	✓	✓	✓					
Design principles	53	●	○	○	○	○	○	○									
Interview for empathy	57	●	○						✓	✓	✓	✓					
Explorative interview	63	●	○							✓	✓	✓					
Ask 5x why	67	●	○							✓	✓	✓					
5 WH questions	71	●	○							✓	✓	✓					
Jobs to be done	75	●	○		○					✓	✓	✓					
Extreme users/lead users	79	●	○								✓	✓					
Stakeholder map	83	●	○								✓	✓					
Emotional response cards	87	●	○									✓					
Empathy map	93	●	○	○					✓	✓	✓	✓					
Persona/user profile	97	●	○	○						✓	✓	✓					
Customer journey	103	●	○	○		○					✓	✓					
AEIOU	107	●	○		○						✓	✓					
Analysis question builder	111	●	○									✓					
Peers observing peers	115	●	○									✓					
Trend analysis	119	●	○		○							✓					
"How might we..." question	125			○	○				✓	✓	✓	✓					
Storytelling	129			○		○	○			✓	✓	✓	✓				
Context mapping	133	●		○	○			○			✓	✓	✓				
Define success	137	●	○	○	○	○	○	○			✓	✓					
Vision cone	141	●	○	○				○				✓					
Critical items diagram	145			○				○			✓	✓					
Brainstorming	151				○	○	○	○	✓	✓	✓	✓					
2x2 matrix	155	●	○	○	○	○	○	○	✓	✓	✓	✓					
Dot voting	159				○	○	○	○		✓	✓	✓	✓				
Brainwriting/6-3-5 method	163				○	○				✓	✓	✓	✓				
Special brainstorming	167				○	○					✓	✓	✓				
Analogies & benchmarking as an inspiration	171		○		○	○					✓	✓					
NABC	177		○	○	○	○	○				✓	✓					
Blue ocean tool & buyer utility map	181				○	○	○					✓					
Exploration map	187					○	○					✓	✓				
Prototype to test	199					○	○		✓	✓	✓	✓					
Service blueprint	203					○	○				✓	✓					
MVP – minimum viable product	207					○	○					✓					
Testing sheet	213						○				✓	✓	✓				
Feedback capture grid	217	●	○	○	○	○	○	○	✓	✓	✓	✓					
Powerful questions for experience testing	221	●	○							✓	✓	✓	✓				
Solution interview	225	●	○								✓	✓					
Structured usability testing	229	●	○									✓	✓				
A/B testing	233											✓					
I like / I wish / I wonder	239	●	○	○	○	○	○	○	✓	✓	✓	✓					
Retrospective sailboat	243							○			✓	✓	✓				
Create a pitch	247			○				○			✓	✓	✓				
Lean canvas	251			○				○				✓	✓				
Lessons learned	255							○				✓	✓				
Road map for implementation	259							○				✓					
Problem to growth & scale innovation funnel	263							○				✓					

“Michael, Larry, and Patrick offer readers a practical and inspiring handbook for developing a new mindset in enterprises or aiming to transform organizations. Let yourselves be seduced by this refreshing toolbox for design thinking.”

—Prof. Yves Pigneur, University of Lausanne,
co-author of *Business Model Generation*

“The Toolbox is an outstanding and easy-to-follow introduction to the world of the most powerful design thinking methods and tools.”

—Patrick van der Pijl, CEO of Business Models Inc.,
author of *Design a Better Business*

“*The Design Thinking Toolbox* provides great practical advice on how to use Design Thinking to successfully turn action into success.”

—Dr. Markus Durstewitz, Airbus,
head of Innovation Methods and Tools

“Probably the most inspirational Design Thinking Toolbox, it drives towards innovative approaches and methodologies with a mixture of known and new tools.”

—Mirko Boccialatte, Chief Operating Officer
Ferrari F1 Team

Also by co-authors Michael Lewrick, Larry Leifer, and Patrick Link

The Design Thinking Playbook

Also by co-authors Michael Lewrick and Larry Leifer

The Design Thinking Life Playbook

THE DESIGN THINKING TOOLBOX

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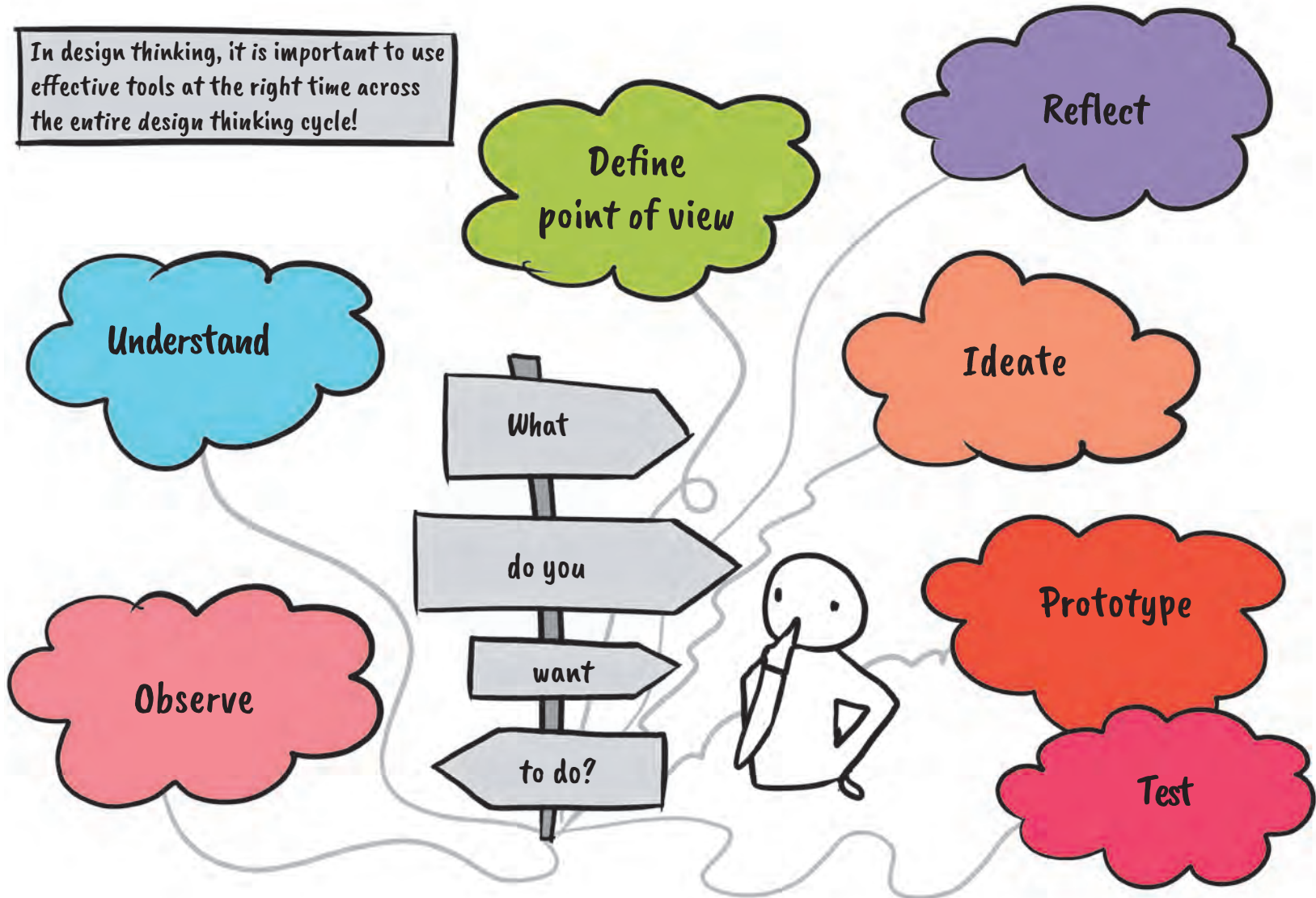
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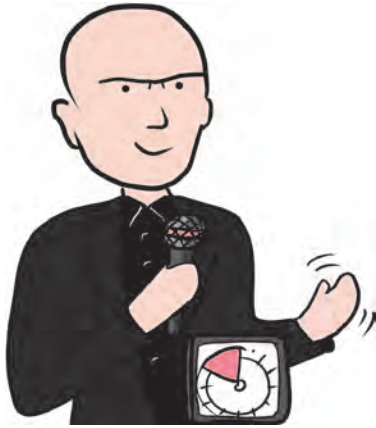
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In design thinking, it is important to use effective tools at the right time across the entire design thinking cycle!



Preface



Prof. Ulrich Weinberg
HPI School of Design Thinking

Many who come in contact with design thinking for the first time search for help in applying it. New mindsets often overwhelm us because over the years we have forgotten how to solve problems with creativity on an ad-hoc assembled team without clearly defined goals.

With the international best-seller *The Design Thinking Playbook*, Michael, Patrick, and Larry have reached many innovators. The *Playbook* provides an inspiring framework for making the design thinking mindset available to a broad range of readers in the context of application.

The Design Thinking Toolbox is an excellent complement to the *Playbook*. Like the *Playbook*, the *Toolbox* is geared to the needs of the readers. The three editors asked more than 2,500 design thinking users from actual practice and academia about the tools and methods they prefer to use and which ones, in their view, bring the greatest benefits. From this, a unique collection of design thinking tools and methods evolved.

The experience at the HPI teaches us that the selection of the right tools across the entire design thinking cycle makes a vital contribution to success. The selection depends on the situation, the team, the possibilities, and the respective goal.

Design thinking is not a rigid concept. It should be used more playfully, that is, the sequence must be adapted to the circumstances.

The Design Thinking Toolbox encompasses, in my view, five key elements that make it an indispensable work tool, in particular for beginners and for deepening design thinking knowledge:

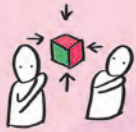
- Assignment of the most important tools to the design cycle
- Simple explanation on the use of tools
- Proposal of alternative tools
- Expert tips from the community
- Exemplary pictures of application

More than 100 experts from the global design thinking community contributed to the content, and show how widespread the mindset has become and how knowledge is exchanged today globally.

I hope you have fun using these design thinking tools and methods!

Uli

Driven by curiosity



We are curious, open, ask W+H questions continuously, and change the perspective in order to look at things from various sides.

Focused on people

We focus on the human being, build empathy, and are mindful when exploring his/her needs.



Accept complexity

We explore the key to complex systems, accept uncertainty and the fact that complex system problems demand complex solutions.



Visualize and show

We use stories, visualizations, and simple language to share our findings with the team or create a clear value proposition for our users.



Experiment and iterate

We build and test prototypes iteratively to understand, learn, and solve problems in the context of the user.



THE DESIGN THINKING TOOLBOX MINDSET



Co-create, grow, and scale



We continuously expand our capabilities to create scalable market opportunities in a digital world, and especially in digital ecosystems.

with varying perspectives and frameworks

As the situation requires, we combine different approaches with design thinking, data analytics, systems thinking, and lean start-up methodology.



NEW MINDSET
NEW PARADIGM
BETTER SOLUTIONS

www.design-thinking-toolbook.com

Develop process awareness

We know where we stand in the design thinking process and develop a feeling for the “groan zone” to change the mindset through targeted facilitation.



Collaborate in networks

We collaborate on an ad-hoc, agile, and networked basis with T-shaped people and U-shaped teams across departments and companies.



Reflect on actions

We reflect on our way of thinking, our actions, and attitudes because they have an impact on what we do and on the assumptions we make.



Contents

We begin with the results of the global survey, an explanation of the design thinking process, and a brief checklist. In addition, warm-ups are presented that loosen up the mood and fit the respective situation. In terms of content, the presentation of the tools follows the logic of the design thinking micro-process. At the end of the Toolbox, we will present initiatives that show how design thinking can herald in a cultural transformation in the context of the company and beyond.

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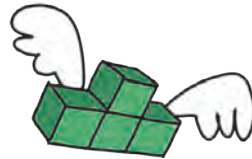
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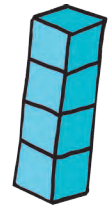
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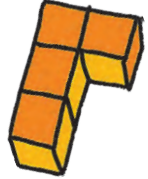
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The Toolbox in a nutshell

Briefly and to the point, we will present the framework in which we move in this Toolbox and how we can use it most efficiently.

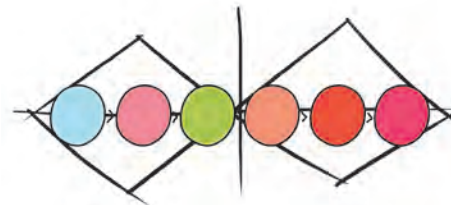


In design thinking, we adapt methods that are commonly applied by designers. This is why we make use of an iterative procedure in design thinking, from the problem statement right up to problem solution. The objective is to generate as many ideas as possible, including “wild” ones, with the help of various creativity techniques. The creative working method aims to trigger both halves of our brain. On our “journey” to a solution, iterations, leaps, and combinations of ideas are desirable in order to obtain a solution that in the end meets the needs of users (desirability). The solution must then also be economically viable (viability) and technically feasible (feasibility); see page 20. On the way to the solution, a high level of error tolerance is of great value, particularly in an early phase.

The tools and methods presented in this book are a means to an end, that is, we always customize the tools to our situation. If you try to explain design thinking in a few words, you must add that, with design thinking, the work is done on interdisciplinary teams, if possible. This is best done with a sufficient number of “T-shaped” team members, who possess not only the depth of knowledge in a certain domain but broad general knowledge as well. A diverse composition of teams (area, culture, age, gender) help in the process and also aid in breaking silo mentality. A central aspect of the design thinking mindset is to build on the ideas of others and not focus on ownership or competition. We deal with the design thinking process and the design thinking mindset in greater detail later.



Design thinking process



Design thinking tools



What tools are in the Toolbox?



The Design Thinking Toolbox aspires to present in a concise way the most important methods and tools in design thinking. To this end, we interviewed over 2,500 design thinkers in order to find out which tools yield the greatest benefits and are preferred by the design thinking community. A total of 150 tools were included in this survey and allocated to the individual steps in the design thinking cycle. At this point, we want to express our gratitude to the international design thinking community, whose members motivated one another to take part in this survey. We are particularly pleased that design thinkers from every continent participated. The survey enabled us to discuss in this Toolbox all those tools that are valuable in the eyes of the design thinking community for living the design thinking mindset.

In collaboration with companies and universities, we have found that users wish a quick reference book, particularly when they are just taking their first tentative steps with design thinking. Thus a selection of just over 50 tools came into being, described by more than 100 experts.

How is the Toolbox structured?

By way of introduction, we first discuss in the Toolbox the design thinking mindset and the design thinking process. The process is used as a reference to classify the individual tools and methods. In addition, a tabular list is integrated in the book cover. It helps with the navigation and with putting workshops together. At the end of the book, the “Quickfinder Tools” and the “Agenda canvas” workshop also helps to turn workshop preparation and workshop planning into a positive experience at an early stage.

What the Toolbox is not.

What we absolutely didn’t want to do is publish a “cookbook.” It is important for us to describe the application of the individual tools and point out in which phases these tools yield great benefits. These pointers are visualized as one full or half-full Harvey ball per process step in the table as well as at the beginning of each tool description.



Every moderator of design thinking workshops should develop his own sense of how and when the individual methods and tools are used, and adapt them to the individual situation of each design thinking workshop and each individual design challenge.

What additional value does the Toolbox offer?

We have made the working tools available online in the form of well-known canvas models, lists, and empathy maps (see www.dt-toolbook.com). Because warm-ups have proven their value for a positive start of a design thinking workshop, six of these ice breakers are also included in the Toolbox.

Love it, change it, or leave it!

As already mentioned, we did not want to write a cookbook for design thinking. **This is important to us:** The individual descriptions of the tools and methods are merely intended as a guide. Hence the Toolbox also shows how other design thinkers use them and what insights they have garnered. After all, the tools and methods must fit the setting of the workshop, the problem statement, and the participants.

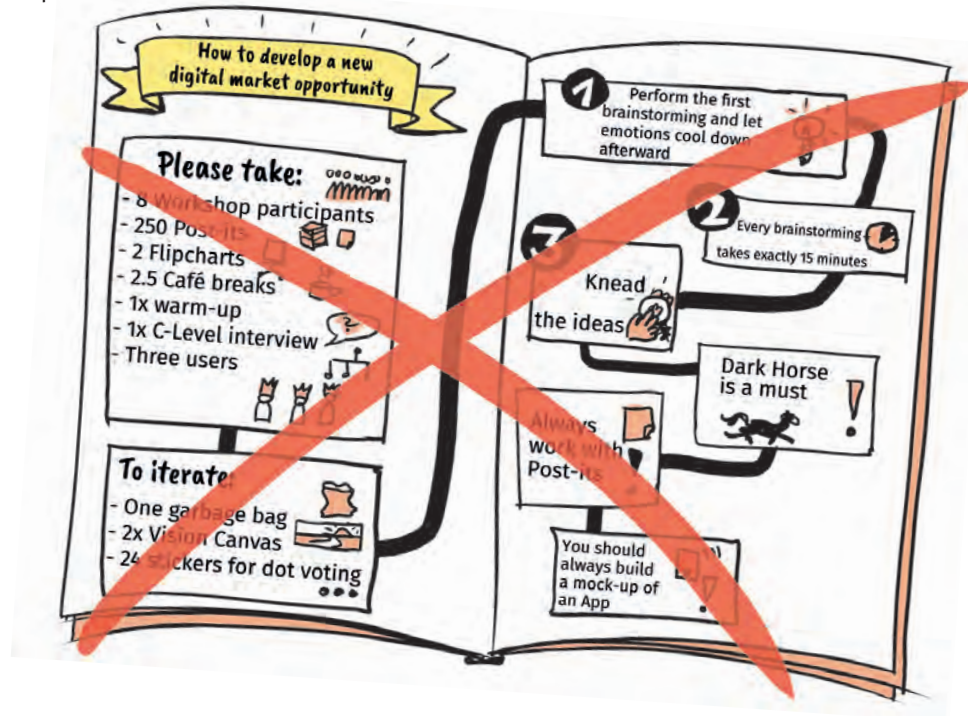
We ourselves had to experience only too often how a detailed agenda without any flexibility and the wrong methods at the wrong time not only turned the workshop into a lousy experience for participants but, far worse, there was no viable solution in the end, nor had the actual problem been dealt with. After such an experience, the likelihood is high that we did design thinking exactly once with our team, and that a defensive reaction against design thinking must be expected.

This means that although design thinking needs tools and methods, experience and a sense of applying it in a targeted way and in sync with the situation are far more important. Some of the methods and templates can and must be adapted.

Love it! Change it! Or leave it!

It is quite instructive to take part in many design thinking workshops yourself in order to learn from others or reflect on the application of the tools together with the workshop participants. A design thinking facilitator and user never stops learning!

A design thinking workshop is not conducted in a way we are familiar with from the explanations in a cookbook!



The global survey

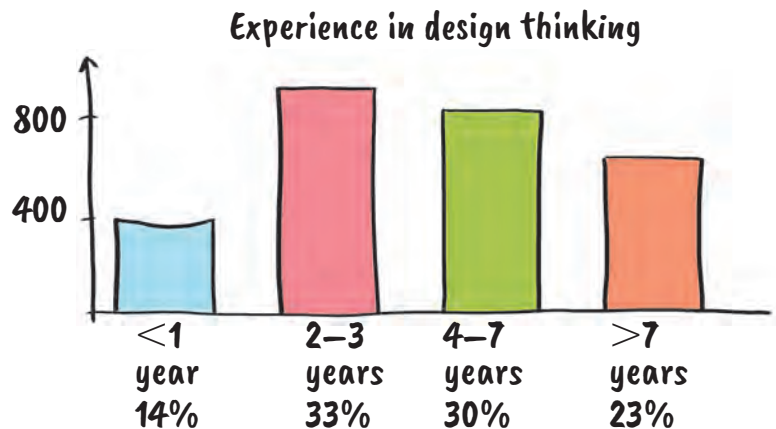


Results of the survey

Who participated in the survey?

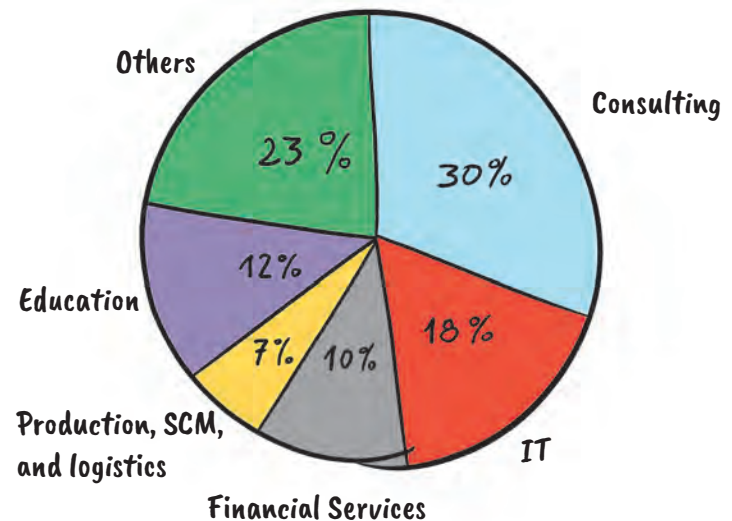
To learn more about the relevance and popularity of design thinking tools, we started the first global survey on “Design thinking tools & methods” in the spring of 2018. The aim of the survey was to find out which methods and techniques are used in actual practice and at universities. The survey was distributed virally throughout the world, mainly via social media. This way, we were able to reach more than 2,500 people with varying levels of knowledge in design thinking who completed our online questionnaire.

Most of the participants in the survey had experience with the mindset, meaning that 85% of them had worked with design thinking for more than two years. There were 23% with more than 7 years of design thinking experience.



In which sectors do participants work?

In terms of affiliation with a particular industry or sector, it is remarkable that most interviewees (30%) were from the consultancy sector. A large proportion (18%) of them were dealing with digital solutions or were working in the IT industry; 12% specified that they came from the education sector; followed by banks, insurance companies, and service providers (10%), as well as in production, supply chain management, and logistics (7%). Other industries claimed 23% of interviewees, including pharmaceuticals and biotech at 4%, or NGOs at 2%.

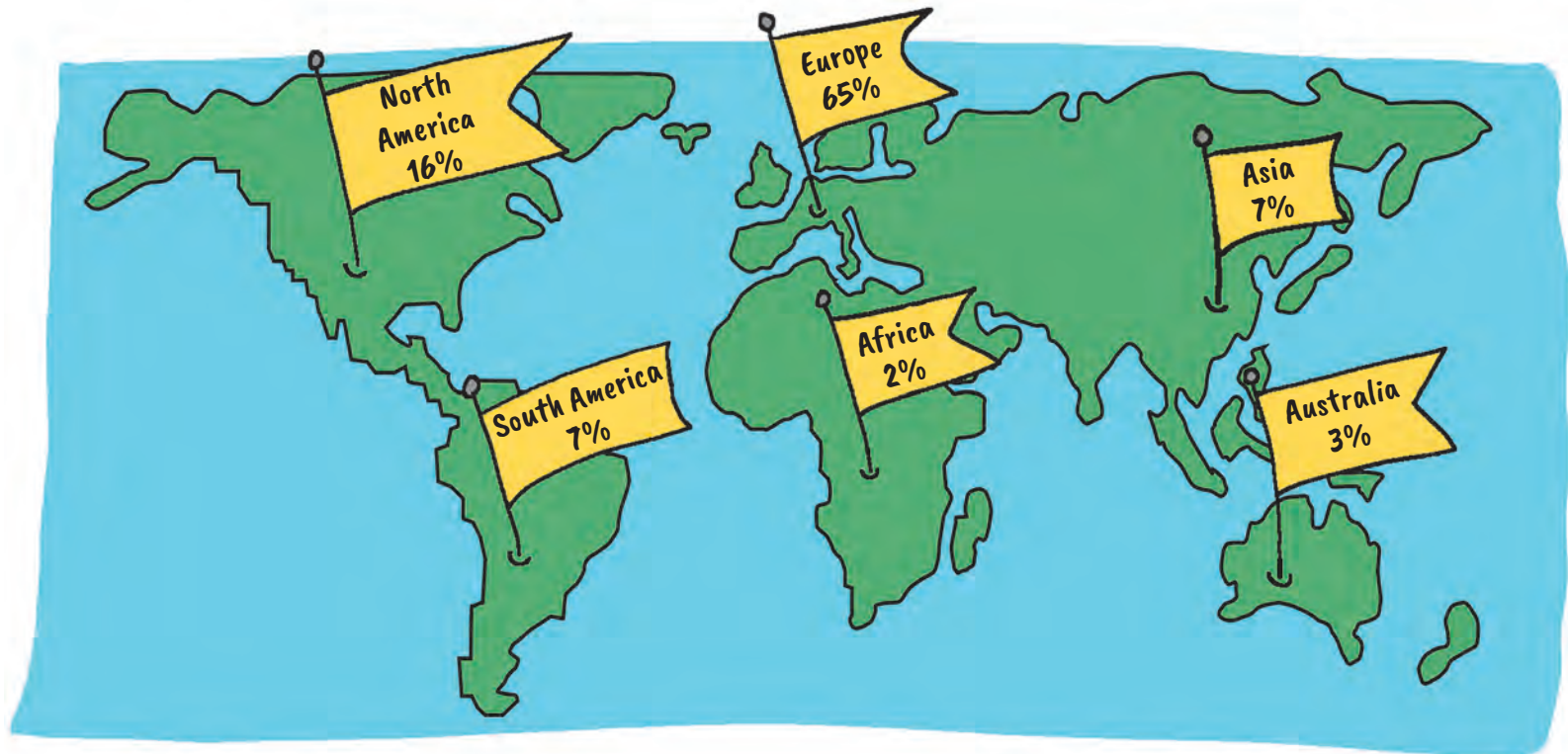


How is the distribution across the globe?

In view of the global reach, the survey included participants from 44 countries. The majority came from Europe (65%), followed by North America (16%), South America (7%), Asia (7%), Australia (3%), and Africa (2%).



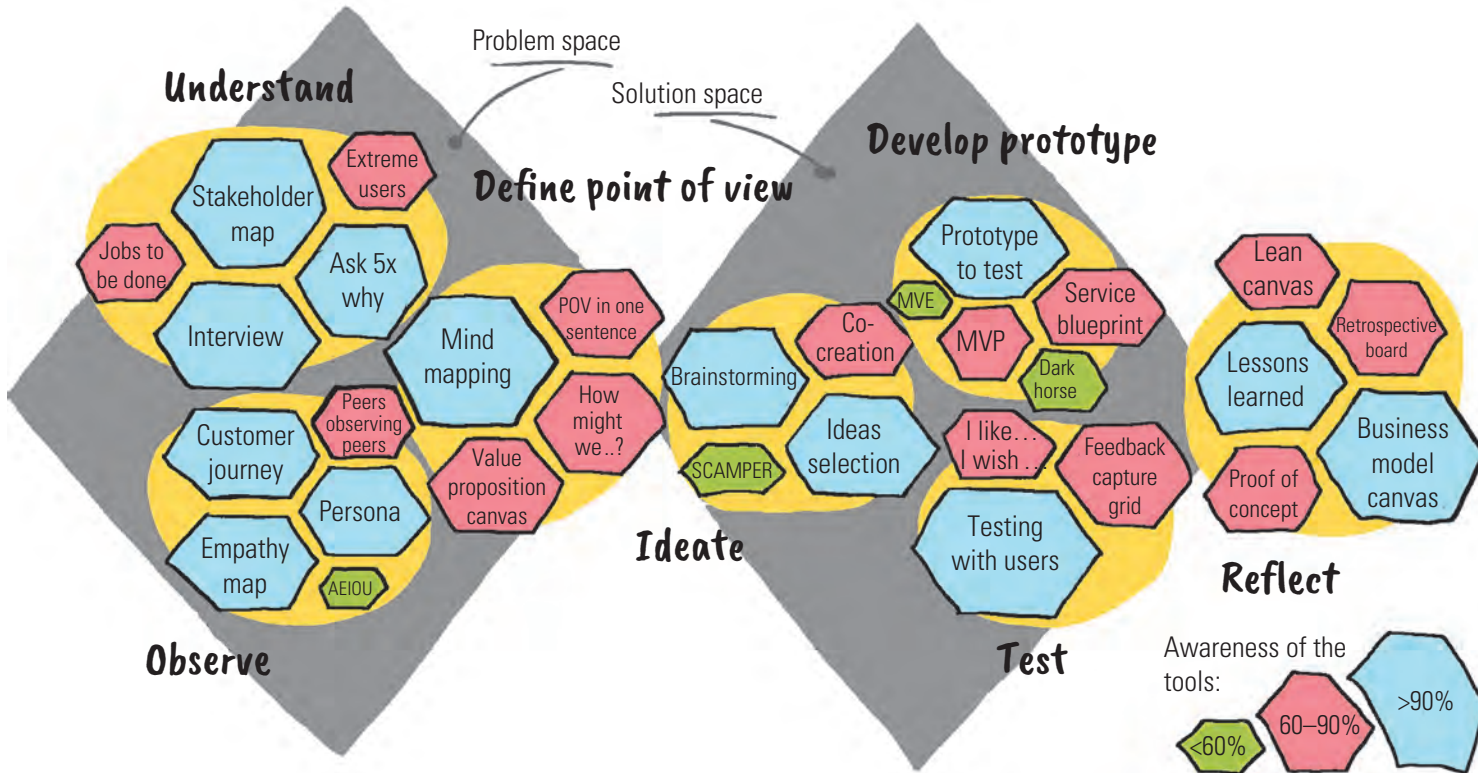
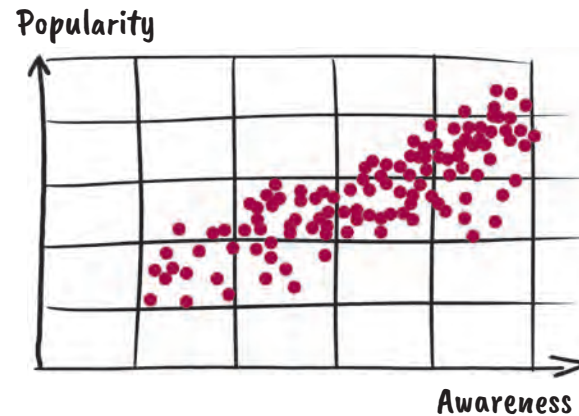
The global design thinking community



The best-known tools

In the global survey, we asked participants if they knew the respective tool and if so, how they rate it. **Awareness [%]** represents the percentage of individuals who know the tool. **Popularity [%]** indicates how many people rated the tool as very useful or stated that it's their favorite tool. The basis for the popularity rating was the basic population of participants who are familiar with the respective tool.

It was no surprise to us that the better known tools are also the most popular, as shown in the Popularity/Awareness plot chart. The following applies in general: **The simpler and more user-friendly the tools, the more often they are applied.**



What is design thinking?



Design thinking?

“The beginner’s mind”

People who have never dealt with design thinking often ask for simple analogies to help envision it better.

We have had good experiences with taking these people on an imaginary trip to their childhood. Especially at the age of 4, all children have something in common – they ask many 5W+H questions in order to learn and understand situations.

Nor do children know any zero-error culture. For them, doing, learning, and trying again stands in the forefront. This is how children learn to walk, draw, and so on.

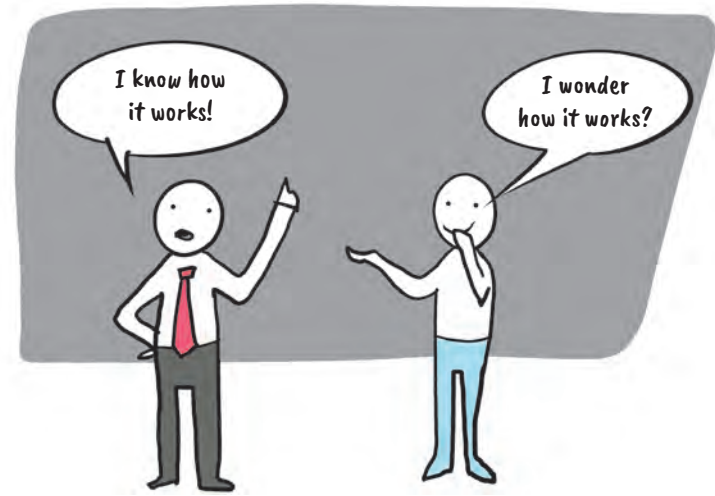
Over the years many of us have forgotten this ability to explore and this type of experimental learning, and our education in schools and universities has taken care of the rest so that we do not question and investigate facts and circumstances in a big way.

With the “beginner’s mind,” we want to encourage people to ask questions as though we didn’t have the slightest idea as to their answers. Like an alien from outer space who sets foot on Earth for the first time and asks himself why we throw plastic into our oceans, work during the day and sleep at night, why we wear ties all the way to rituals that seem strange indeed to an outsider, such as looking for eggs at Easter time.

“If your mindset is unprejudiced...it is open to everything. “In the beginner’s mind, there are many possibilities, but in the expert’s mind there are few.” – Shunryu Suzuki

A “beginner’s mind” as the basis for our attitude:

- Free of prejudices about how something works
- Free of expectations about what will happen
- Filled with curiosity to understand things more deeply
- Open to a world of possibilities since we do not yet know at the beginning of our “journey” what is possible and what is not
- Fail early on and often; learn quickly



How we behave in order to apply design thinking successfully:

- We bid farewell to prejudices on “how things work.”
- We put aside expectations about what will happen.
- We strengthen our curiosity to understand facts and problems in depth.
- We open ourselves up to new possibilities.
- We ask simple questions.
- We try things out and learn from it.

Success factors of design thinking

In addition to the “beginner’s mind,” which constitutes an excellent starting point, a number of core propositions and success factors have become established in the design thinking community. We will describe them briefly.

1. Starting with human beings

People with their needs, possibilities, experience, and knowledge are the starting point for all considerations. People know pleasure (gains) and frustration (pains) and have tasks to be fulfilled (see Jobs to be done, page 75).

2. Create awareness of the problem

In design thinking, it is of crucial importance to understand what we work on and what greater vision ought to be pursued. In order to find a solution, the team must have internalized the problem and have understood it in depth.

3. Interdisciplinary teams

Collaboration on the team and of teams of teams is vital for the holistic consideration of problem statements. Team members with varying skills and specialist knowledge (T-shaped) help in the creative process and with the reflection upon ideas.

4. Experiments and prototypes

Only reality shows whether a function or solution will last. The implementation of simple and physical prototypes helps in getting feedback from potential users.

5. Be mindful of process

For the work on the team, it is crucial that all members know where the team stands in the design cycle; which goals are currently to be attained; and which tools are to be used.

6. Visualize and show ideas

The value proposition and vision of an idea must be communicated as needed. In so doing, the needs of the user must be addressed, memorable stories be told, and pictures be used while telling a story.

7. Bias toward action

Design thinking is not based on lengthy considerations by somebody who sits alone behind closed doors. Instead, it lives from doing (e.g. building prototypes and interaction with potential users).

8. Accept complexity

Some problem statements are quite complex since we want to integrate different systems and react to events agilely and with purpose. Thinking in systems is more and more becoming a critical skill, for example, in the case of digital solutions.

9. Co-create, grow & scale with varying mental states

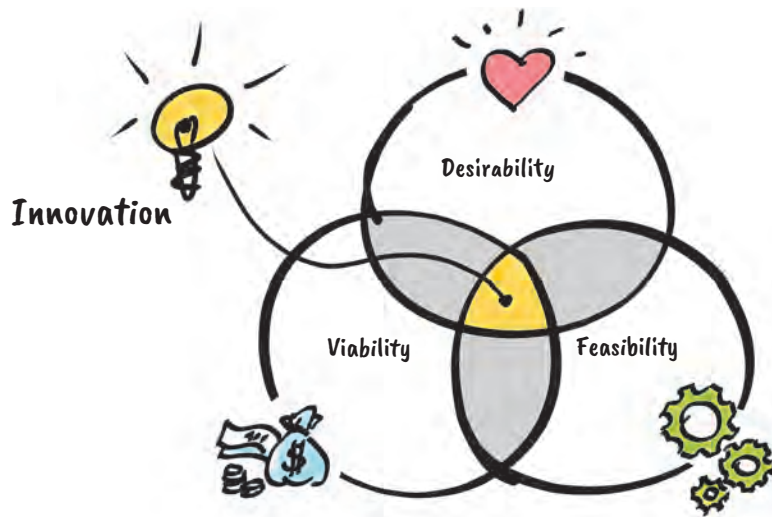
Design thinking helps us in solving problems. For market success, however, business ecosystems, business models, and organizations must also be designed. This is why we combine different approaches with design thinking, such as data analytics, systems thinking, and lean startup, as the situation requires.

The mindset and the success factors are crucial because each makes us capable of acting and helps us pose the right questions. It is the small changes in our mindset that enable us to pose questions in a different way and look at problems from other points of view.

From the user's point of view

The focus on human beings and the potential users of a solution is another key element of design thinking. Then there are the questions of feasibility and economic viability. This balancing act usually accompanies us to the final prototype and often beyond it.

Successful innovations therefore evolve from the needs of the customer/user (desirability), a solution that is profitable (viability), and technical implementability (feasibility).



With design thinking, we usually want to solve complex problems, taking into account that the complexity can vary greatly from company to company and from one technology to another. The user/customer, especially if he is not technically savvy, always has a desire for a simple and elegant solution.

Thus we have developed a number of methods and tools over the years that help us to simplify, for instance, the interaction between human beings and technology.

A design team uses the design thinking process as a guide for the design of such solutions. The process is described on page 22.

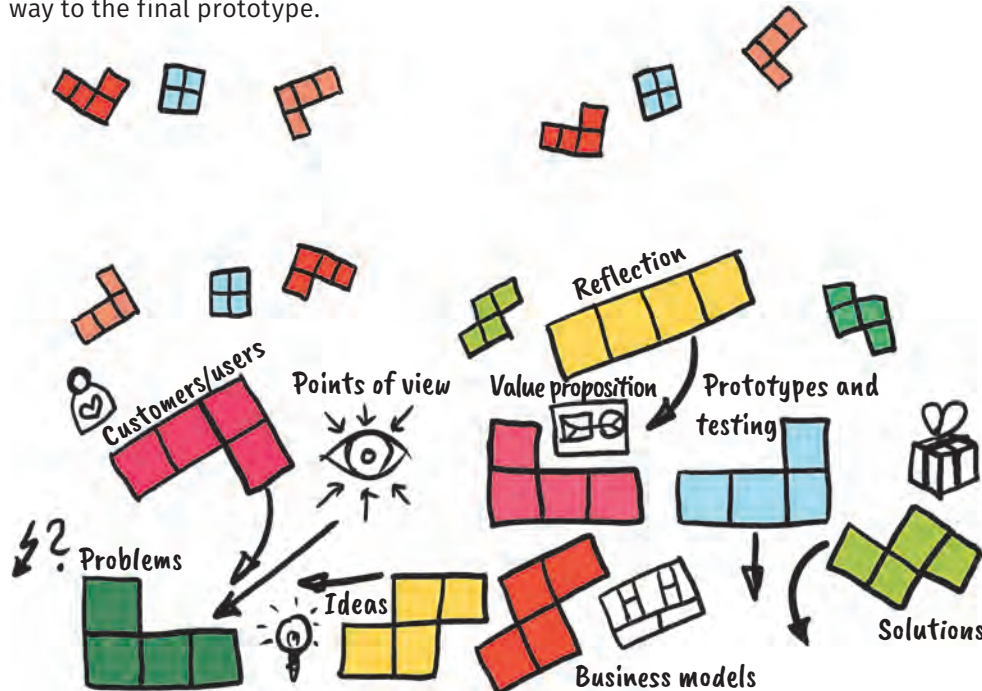
“Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.”
—Tim Brown, president and CEO of IDEO

Why are the three dimensions important?

- They **reduce the risks** associated with the launch of new solutions.
- They help teams, organizations, and companies **learn faster**.
- They lead us to **solutions that are innovative** and **not only incremental**.

It is like working on a puzzle, only dynamically

In the context of *The Design Thinking Toolbox*, the tools can be used flexibly so that we achieve a balance between **desirability**, **feasibility**, and **economic viability**. Like with each Tetris level, the arrangement, the speed, and the sequence change with each design challenge. We need to be able to adapt the relevant tools to the given situation. In Tetris, we can also rotate the tiles at a 90-degree angle. In the same way, there are additional variants of each tool that we can use in such a way that they ultimately lead to the optimum result. If we do not agilely adapt the methods and tools in the workshop, there will be a quick “game over” for our project. What the snapshot below shows happens all the time, that is, in each micro-cycle, it will be new and adjusted to the situation. Various tools and methods are used from an initial problem definition or the formulation of a point of view all the way to the final prototype.



After all, we want to achieve a fit between the **problem and the customer (problem/customer fit)** as well as a fit between **the problem and the solution (problem/solution fit)**. Today, we also have the possibility of generating individual experiences and offers for customers by means of artificial intelligence and big data analytics, thus achieving an **individual user/solution fit**. The derived value proposition should optimally harmonize the three elements of problem, users/customers, and solution. In a digitized world, the complexity increases again, making it all the more important to solve the problem in iterative steps.

In general, we don't want to see the very first idea or assumption as the solution. Design thinking makes it possible for us to realize solutions that meet the wishes of the customers, solve a genuine problem, and thus provide value for the customer.

The design thinking process

In this book, we follow the six phases of the design thinking micro-cycle: understand, observe, define point of view, ideate, develop prototype, and test. In the end, we can add the phase of reflecting, which we consider to be important in order to learn from our actions. In this section, we would like to explain briefly the phases of the micro-cycle. In the double diamond model of the British Design Council, the first three phases encompass the problem space and the next three the solution space.

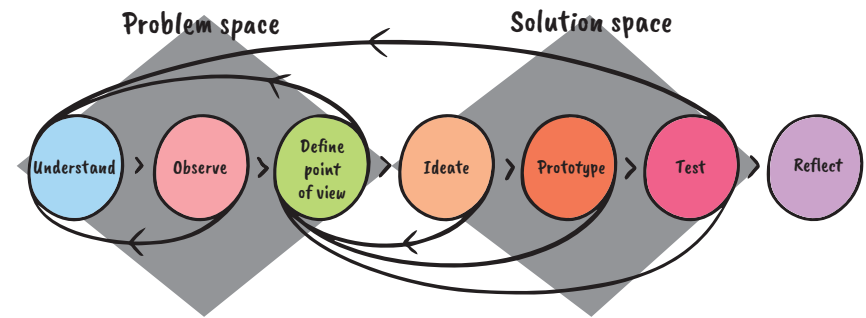
Understand

In the first phase of the micro-cycle, we want to learn more about the potential user, his/her needs, and the tasks that he/she must complete. At the same time, we define the creative framework more exactly, for which we want to design solutions. For the definition of the design challenge, we use, for example, “WHY” and “HOW” questions in order to broaden or limit the scope. Tools such as Interview for empathy (see page 57), Extreme users (see page 79), and the 5W+H questions (see page 71) support this phase. The following phases and tools help to ensure that we learn more and more about our potential users.

Observe

Only reality can show whether our assumptions, for example, presented in a persona (see page 97), will be confirmed. This is why we have to go to the place where our potential users are located.

Tools such as AEIOU (see page 107) help us with the observation of users in their real environment or in the context of the respective problem. A trend analysis (see page 119) also sheds light on technological and social trends that help us recognize developments. The findings from the “observe” phase help us in the following phase to develop or improve the persona and the point of view. When we speak to potential users in order to learn more about their needs, we should ask questions that are as open as possible, working with a question landscape, for example. A structured interview guide can also be helpful. Often, however, it just confirms your own assumptions.



Define point of view

In this phase, we focus on evaluating, interpreting, and weighting the findings we have gathered. The result eventually flows into the result synthesis (point of view). Methods such as context mapping (see page 133), storytelling (see page 129), or vision cone (see page 141) are used for the presentation of the findings. The point of view is usually formulated as a sentence (see “How might we...” question on page 125), for example, to make a statement on the basis of the findings according to the following scheme:

Name of the user/persona: (who) _____
needs: (what is needed) _____
in order to: (his/her need) _____
because: (insight/finding) _____

Ideate

Once we have defined the point of view, the ideate phase “Ideation” begins. Ideation is a step toward finding solutions for our problem. Usually, different forms of brainstorming (see page 151) and specific creativity techniques, for example, working with analogies (see page 171), are applied. Dot voting and similar tools (see page 159) help to select and cluster the ideas.

Prototype

The building of prototypes helps us to test our ideas or solutions, quickly and without risk, with our potential users. In particular, digital solutions can be prototyped with simple paper models or mock-ups. The materials are very easy: craft materials, paper, aluminum foil, cords, glue, and adhesive tape are often sufficient to make our ideas tangible and come alive. Various kinds of prototypes are presented in the Toolbox section under the heading “Prototyping” (see page 187 and what follows). The prototypes range from critical experience prototypes all the way to a final prototype. Ideation, building, and testing must each be seen as one sequence. They cover the so-called solution space.

Test

Testing should take place after each built prototype, even if individual functions, experiences, or forms were developed. When testing, the most important thing is that interaction with the potential user takes place and that we document the results. The testing sheet (see page 213) comes in handy here. In addition to a traditional test, it is possible to use digital solutions for testing, for example, online tools within the scope of A/B tests (see page 233). This way, prototypes or individual functionalities can be tested quickly and with a large number of users. The tests provide us with feedback that helps with the improvement of our prototypes. We should learn from these ideas and develop them further until we completely convince the users of the idea. Otherwise: discard or change.

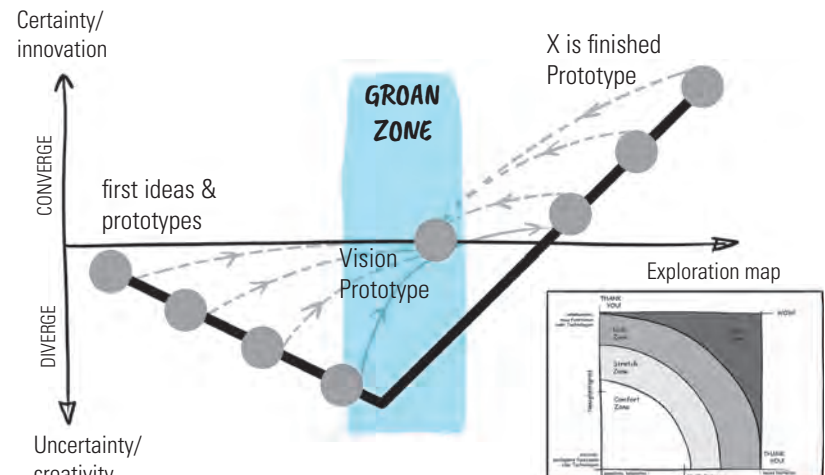
Reflect

Reflection is a constant companion in design thinking since this is how we learn. Tools such as the “retrospective sailboat” (see page 243) or feedback rules based on “I like, I wish, I wonder” (see page 239), support the mindset.

The design thinking macro-cycle

In design thinking, we run through the micro-cycle several times. The aim is to create as many wild ideas and prototypes as possible in the divergent phase, which will help to sharpen our vision. In the convergent phase, our prototypes are more specific and have a higher resolution. The functional prototype helps us, for example, to review the problem/solution fit for individual elements before it matures into a final prototype. This phase is usually followed by the implementation and the market launch. These days, many products and services also need a well-thought-out business ecosystem that should be designed on the basis of a Minimum Viable Product (MVP) and Minimum Viable Ecosystem (MVE), respectively. *The Design Thinking Playbook* is the ideal supplement here. It goes one step further and shows how systems thinking and design thinking can be combined so as to apply this combined mindset to the design of business ecosystems.

In *The Design Thinking Toolbox*, the various kinds of prototypes, that is, the development stages from “first ideas” up to the finished prototype (“X is finished” prototype), are described again in detail in the “Prototyping” section (see page 187 and what follows), and are positioned, for example, in the “exploration map” tool (see page 195).



How do we apply design thinking?

An interdisciplinary team...



...follows a process...

...uses the appropriate tools that fit the situation...

...and develops new solutions for a defined problem statement...



...in an environment that allows free thinking, learning, and creativity.