

# Let's Bring Home Even More Benefits from Design Thinking: Ideas for an Iterated Design Thinking Process Model

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**Abstract.** Design thinking research has provided two good reasons for a revision of the design thinking process model. (a) Prototyping is now considered an important means for facilitating communication in all stages of the design thinking process. Therefore, the “prototyping sign” in current process models is misleading. It seems to suggest that prototyping is a single stage or mode, which typically becomes important in the second half of the design thinking process. (b) While design thinking generates most promising innovative ideas, it has proven hard to push successful prototypes to large scale real life solutions, i.e. as products of the company who placed a design order. That is not too surprising given that current process models offer little help for further advancing successful prototypes. We suggest a revised process model that expands the end phase: (1) Explore, (2) point of view, (3) ideate, (4) test prototypes, (5) bring home. The last stage or mode prompts us to assemble methods for design thinkers to advance successful prototypes or to benefit in other meaningful ways, i.e. to extract the most from failures or to reflect and enhance personal innovation skills.

## Current Design Thinking Process Models

Two prominent design thinking process models are depicted in figure 1.

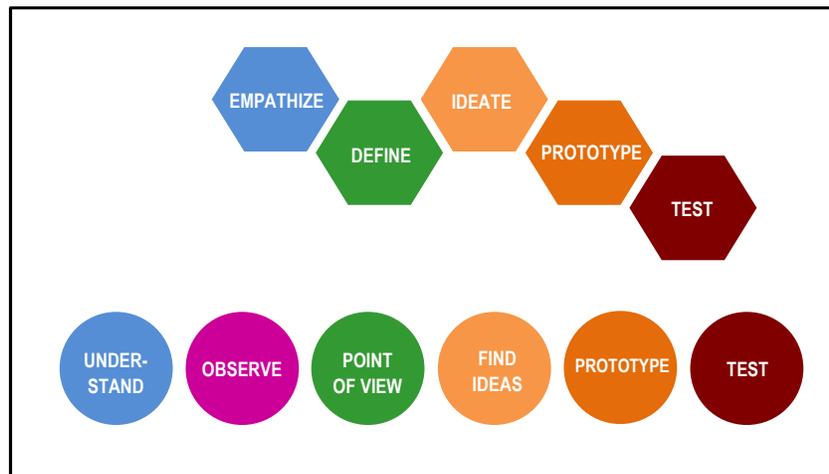


Fig. 1: Common design thinking process models.

Both models suggest a unique stage or mode of **prototyping**. They also agree that the process ends with **testing**.

We believe, design thinking research has given us at least two good reasons for iterating our process models.

## First Reason for Change: Prototyping is Important in All Stages or Modes

A first reason for revising current process models is the insight that prototyping can and should play an important role throughout the whole design thinking process.

The Tangible Rule: Make Ideas Tangible. Facilitate Human Communication. Curiously, this is one of our most recent findings. While conceptual prototyping has been a central activity in design thinking during the entire period of our research, it is only in the past few years that we have come to realize that “prototypes are communication media”. [...] The “make it tangible” rule is one of the first major findings of the design thinking research program documented in this book. (Meinel & Leifer, 2014, p. 5)

Thus, it seems to make little sense to address **prototyping** as a unique stage or mode in the design thinking process any longer, comparable in standing to **define** or **ideate**. We suggest an introduction of prototypes rather in terms of methods and mindset.

Firstly, there are prototyping techniques. They are methods, which may be invoked in one stage or other throughout the process. For instance, Rhinow, Koepen, Jobst and Meinel (2014) have devised prototyping cards that help design thinkers select most useful prototyping techniques for each stage or mode of the process.

Secondly, prototyping figures as a mindset. I.e., Roth even describes prototyping as “a way of life” (video accessed 2014, minutes 0:28-0:31). Addressed in terms of a mindset, prototyping again covers the whole design thinking process and is not a single stage or mode of it.

## Second Reason for Change: Winning Ideas Should Result in a Winning World More Frequently

Many factors still limit the impact of design thinking.

Looking at the *design thinker*, a rigid social community or strong habits of tackling problems in traditional ways may prevent the person from invoking design thinking whenever it would be useful.

Looking at good *design thinking ideas*, it still happens too often that they just fizzle out. Larry Leifer explains this, using the metaphor of hunters. Design thinkers are hunters who leave their home base – often a company – to reach a promising idea somewhere out in the world. Once the big idea is found, it is still difficult to bring it home, i.e. to have the company realize the concept as a product, which then changes the world.

The outward bound process of finding the big idea is relatively benign. You don't threaten anyone [...]. But when you try to bring it [the good idea] home, there are all these people in the organization who are threatened by your idea. You may change their job; you may need their business unit. There are lots and lots of reasons to have bad guys out there. And these bad guys are especially good at shooting down ideas. [...] There is so much skepticism [...]. This skepticism phenomenon is our next big challenge in design thinking research. How to manage the path home? (Leifer, video published 2012, accessed 2014, minutes 18:18-19:34)

## A Revised Process Model

Figure 2 suggests a revised process model.

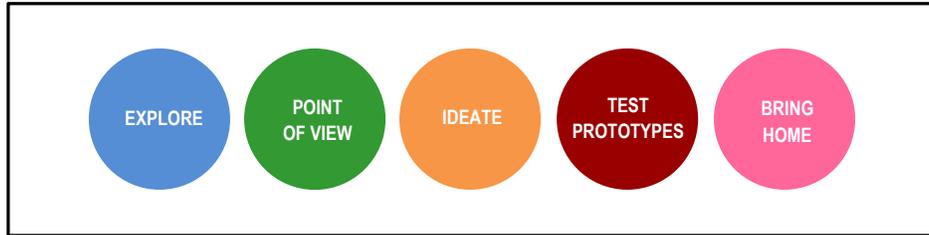


Fig. 2: Iterated design thinking process model – our suggestion for a new version

The first stage or mode is called **explore** in the revised model, but it could be called **empathize** or **understand** and **observe** as well.

The second bubble reads **point of view**. Whatever name you assign to this stage, we believe the important point is to stress that here you focus and you synthesize a unique view.

The third stage of the model, **ideate**, does not change with regard to prior models.

**Prototype** disappears as an extra stage or mode.

The **test** mode is renamed into **test prototypes**, taking into account that we want to test ideas in a tangible way, not in an abstract format. In addition, the plural may encourage the devising of multiple prototypes, which can help avoid great frustration with single failures (Dow et al., 2012).

Building on the hunter metaphor, **bring home** is added as a final stage or mode at the end of the process. **Benefit** or **impact** might be alternative names for this stage.

### A mode to focus on benefits

We envision the **bring home** mode as a phase of reflection and preparation that addresses in particular what the individual design thinker wants to bring home for himself and how the team wants to pave the way for their big idea so that it may benefit and impact the world at a larger scale. In this mode, reflection, balancing and foresight may be helpful. Finally, resources could be drawn together to prepare for – possibly – stony ground.

Some questions for reflection may be:

- How did your personal capacities as a problem-solver grow due to the project?
- What were your favourite insights from ideas or prototypes that tanked?
- (How) did you personally profit from your most successful prototype?
- Did your design thinking experiences prompt you to make changes in your environment?

Some questions for balancing may be:

- According to your view, how ready is your best prototype for becoming a large scale real world solution? What is still missing?

- Do you want to bring the baton over the finish line? Or who else would be a strong final runner? Who could take over the baton?

Some question for foresight may be:

- How will you preserve or restore your energy and verve in case others (friends, family members, colleagues...) don't share your passion for change?
- How will you proceed when the superior in charge at your company delays implementation plans? Will you launch a new design thinking challenge: "How to realize our big idea?" Or what else do you want to do?
- What persons, what materials, what change of environment could help realize your big idea?
- On the journey from prototype to large scale reality, what are five likely ways of failure and how can you prepare for them?

As Leifer stresses, bringing big ideas home (i.e., having them realized by big companies) is still challenging. "We know it's difficult. We don't know how to do it. It's the subject of research and I think our global community has to contribute" (Leifer, video published 2012, accessed 2014, minutes 19:34-19:45).

Maybe a **bring home** mode helps us collect and evaluate methods to increase the personal and world-wide benefit from design thinking even further.

## Bibliography

Dow, S. P., Fortuna, J., Schwarz, D., Altringer, B., Schwartz, D. L. & Klemmer, S. (2012). Prototyping dynamics: Sharing multiple designs improves exploration, group rapport, and results. In H. Plattner, C. Meinel and L. Leifer (eds.), *Design Thinking Research. Measuring Performance in Context* (p. 47-70). Berlin: Springer.

Leifer, L. (video accessed in March 2014). *Larry Leifer on Design Thinking & the "Hunter" metaphor*. Accessible at: <http://www.youtube.com/watch?v=VhzrxPgDHbY>.

Meinel, C. & Leifer, L. (2014). Introduction. In H. Plattner, C. Meinel and L. Leifer (eds.), *Design Thinking Research. Building Innovation Eco-Systems* (p. 3-10). Berlin: Springer.

Rhinow, H., Koepen, E., Jobst, B. & Meinel, C. (2014). *Design Thinking Prototyping Cardset*. Potsdam: Hasso-Plattner-Institut.

Roth, B. (video accessed in March 2014). *Bernard Roth, Interview on Prototyping*. Accessible at: <http://www.youtube.com/watch?v=s9utfN-uh4k>.