



PROTOTYPE
THINKING
LABS

INTRO TO PROTOTYPE THINKING

How to innovate and iterate faster with Prototype Thinking





Overview

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Prototype Thinking is a methodology for rapid learning and iteration. You can use it to generate new ideas, solve business challenges, and validate solutions in a fraction of the time. The methodology focuses on testing and iteration — two aspects of design that are often overlooked and neglected. People love using Prototype Thinking because it's fast, inexpensive, and fun. Anyone can use it and from anywhere in the world. From schools and social enterprises to developing world markets and corporate innovation labs, Prototype Thinking has become a popular method for user-friendly design. In this free guide, you'll get exposed to the Prototype Thinking mindset, principles, and tools which you can apply to your own work.

What is Prototype Thinking?

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Prototype Thinking is a user-friendly design process that makes prototyping, testing, and iteration easy and fun. You can use it when you're not sure where to start, which direction to go in, or when you feel stuck. The process takes the best practices from Design Thinking, Lean Startup, and Google Sprints and combines them with behavioral psychology, simulation-based qualitative research, and business design.

Whenever you sit down to work on a new project or business solution, the first question should always be 'what are our top unknowns'. This encourages us to focus on solving the top unknown that will give us the biggest leverage. When we're playing a video game, there are certain objects that can unlock more power than others. Ranking our unknowns works in the same way. When we start with a list of what we don't know, we can plan experiments to find the answers. We start with the top unknown and then systematically move down our list solving each unknown, one by one.

Working in this way helps us move quickly. It enables us to employ our resources in the most efficient way, unlocking time, manpower, and resources as we go along. Using Prototype Thinking, you can de-risk books, events, marketing collateral, workflows, packaged goods, software, and even important conversations. The possibilities and applications are endless. Once, it was even applied to someone's dating life!

Prototype Thinking can help your team or organization test more options in a shorter amount of time. It can help you make hundreds of changes and dozens of pivots that will reduce the risk associated with new ideas, products, and services -- ultimately saving you time and money.

Phases of Prototype Thinking

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We teach the 5 phases of Prototype Thinking as a cyclic process. The goal is to go through a full cycle starting at **concretize**, grounding the problem in the real world, and to end on **ideate**, redesigning off the data. With practice, you'll incrementally gain speed and be able to complete a full cycle in a day or less. A prototyping sprint typically takes 2-3 cycles.



Concretize: situate the idea in time and space

Prototype: build a fast and concrete example

User test: get authentic, real-time responses from real users

Understand: synthesize observations and strategize next steps

Ideate: generate new ideas based on previous insights

When done correctly, Prototype Thinking will help you better understand the needs, mindsets, and realities' of the people you're serving, and innovative new solutions that are delightful, groundbreaking, and deeply impactful.

How do I apply Prototype Thinking?

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You can use Prototype Thinking in virtually any area: new products or services, marketing campaigns, improving engagement and retention, roadmaps, portfolio strategies, and more. We've even used it to prototype our own careers.

Truly, this unique methodology can help you prototype, iterate, test and validate solutions instantaneously to get you the right answer the first time.

TIPS FOR PROTOTYPE THINKING

Tackle the top risk first

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When you don't know where to start, begin by writing down all of your top unknowns around your project or idea. Then, rank them in order of risk: which ones are most important to work out, that you are least confident about?

Once you have the list, design a quick experiment to give you confidence about Risk #1, and ignore everything below it. Once you solve your biggest problem, all the other interrelated ones will completely change.

Say "I don't know; Let's test it"

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Our favorite saying is that if you can't solve a problem in 10 minutes of discussion or debate, you're not going to solve it in another 10 hours. One of the most powerful capabilities in the world is the ability to notice when you (or your team) *doesn't actually know the answer to something*.

It's okay not to know. The entire point of creating something new is to go into uncharted territory. Just stand up and say, "Hey, it looks like we don't have the answer." Then, design an

experiment to go find the answer in a short amount of time. Most experiments can be put together and run in just a few hours.

Take a mediocre guess

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Confident about where you're going? Great, run with it.

Very often, however, we're genuinely uncertain. That's completely normal, however it is important not to let uncertainty paralyze us. In these cases, just take a mediocre guess at what the solution might be so you can keep moving forward with creating a tangible prototype.

The key here is to *put in an amount of effort commensurate to your level of confidence*. If you're only 20% confident about your idea, don't spend more than an hour on the prototype. Changes are high that 80% of it will change immediately anyway. If you're 50% confident, it may be worth spending a day or so putting something together. If you're 90% confident, time to invest a few weeks into building a working MVP or pilot.

Keep in mind that killer ideas don't really come out of ideation sessions: they come out of experience and data.

If you're prototyping and iterating a lot, you don't need to start with a single great idea because you'll be revising the idea constantly through user contact. The deeper your understanding of the situation, the more of the user's life, beliefs, experiences, and internality around the challenge space you're exposed to, the more likely you will eventually come up with the right idea.

Live in the reality of the user

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The vast majority of human behavior is subconscious. No user will ever give your product or service or solution their undivided attention.

Instead, it's on you to build the solution out of the existing building blocks of their life and worldview. How do they structure their time? What language do they use? When, where, and how would they change their behavior to access your solution? What does it take to make that happen?

Get incredibly concrete & specific

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All ideas are good ideas. However, an abstract statement will give you an hypothetical response with what the user thinks they think. But a concrete and specific design will give you a genuine response of what they actually unconsciously think.

This does not mean that it has to be a perfectly designed mock-up with every piece in place; it just needs to be free of generalizations that require the user's imagination to fill in.

Having a concrete and specific example provokes an authentic reaction. The more concrete it is, the more reliable the data you will get back. If you have a section that the user needs to imagine, then the user will need to fill in the blanks with their imagination and give you feedback that includes their imagination.

Instead, give your user incredibly concrete and specific examples so that they can give you their most authentic reaction.

Separate conjectures from actuals

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When we start a project, we have a lot of conjectures. A conjecture is an educated guess. Conjectures are what we believe to be true and what we expect will happen.

Actuals, on the other hand, are what we learn from directly observing human behavior.

Our job is to turn conjectures into actuals through experimentation. Remember the saying: conjectures become experiments, actuals become decisions.

Look for the magic moments

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A magic moment is when something about your product clicks and creates a visible, physical reaction in your user.

It is the moment when it becomes clear that your offering has created a visceral, transformative difference for the user's life.

We believe the heart of the product is the magic moment; the rest of the design serves as the path to get there.

Experiment in volume to maximize chances of success

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We can't control where we find the magic moments. What we can control is how many different experiments we try to get closer to the magic moment.

If you are left with open questions after thinking about it for half an hour, go ahead and build out a prototype of all the options and test them. Through this process it will become very clear what the landscape of solutions is and it will give you a clearer picture of which direction the answers lie.

Keep the 10% that works

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Nothing we do is an absolute failure. There will always be 10% that works. Take it and keep adjusting.

You might not be able to control the outcome on a project, but you can control what you do with the information you learn.

Nail it before you scale it

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Everyone wants to scale and grow. Sometimes we find that before our clients have built a working model, they're already trying to reach a million users.

Knowing how to make something work and how to make it work for a lot of people are two different things. To make it scalable, we need to understand what the heart of the thing is.

Don't put the cart before the horse. Make sure you've nailed the experience for 1 person before you scale it to the 2nd, 10th, and 100th.

Don't wait for a complete testing plan or project scope before you get started

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Just as your design evolves in response to information that comes back, so should your design and testing process itself. If you find yourself spinning on building a testing roadmap, then just dive in without one. Quite often, the response to your first 3-4 tests will completely change how you think of the rest of the design process anyway.

There are many, many user testing tips and techniques: but no user testing technique is more powerful than literally just doing it.

So go forward, be brave and create something awesome.

Building Your Supply Kit

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One of the things that we love most about Prototype Thinking is that it requires no expensive tools or materials. Almost everything can be found at a drugstore or in a junk drawer at home.

Depending on the exercise, we use different supplies in different colors. To start, you can begin with a simple supply kit using the following materials:

Digital Prototyping Supplies

- Video conference (make sure you see the face of your user)
- Google Slides (for building and iterating on mockups with a user on video)
- Google Docs (for ranking risks and planning prototypes)
- Mural (for synthesizing learnings)

In-Person Prototyping Supplies

- 3x3 sticky notes
 - Small Sticky Notes - various sizes
 - Sharpies
 - Colored Sharpies
 - Pens
 - Card Stock
 - Paper
 - Cardboard
 - Index Cards
 - Tape or Glue
 - Scissors
 - Plastic envelopes for storing prototypes
 - Plastic container for storage
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TESTIMONIALS FOR PROTOTYPE THINKING

This literally saved our team hundreds of thousands of dollars and time (development, consumer insights, procurement etc.) pursuing the wrong idea. It allowed us to quickly pivot on the fly and test a radically different unique solution that consumers loved.

— Carol Dzingai, Innovation Manager, US Cellular

I ran an accelerator for early stage companies for 6 years and I can honestly say that Prototype Thinking is the most valuable asset an entrepreneur at any stage can learn and institutionalize.

— Justin Kaster, Founder & CEO, 2100 INC

Thanks again to Prototype Thinking Labs for running the rapid prototyping workshop!! It's continued to pay dividends for my business.

— Kevin Felix Chan, Founder & CEO, Best Delegate.



Now it's your turn!

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We hope this guide will help jumpstart your desire to use Prototype Thinking. It's a revolutionary method that has changed the way we think, live, and work and we know it will have profound effects on you too!

Don't let discomfort or the fear of not knowing keep you stuck. If you're feeling unsure of where to go, know you have a methodology in your toolkit that will do the heavy lifting for you. All you need to do is trust the process and keep prototyping and iterating. The more options you try, the more you'll learn, and the faster you'll get to the heart and truth of what your customers want.

As much as prototyping is a mental and physical practice, it's also a deeply emotional and spiritual one. We hope you use these tools to tackle problems to improve people's lives. Prototyping is an act of service, and we want to see you use it to help people in a meaningful way.

J & Olivia

Co-founders, Prototype Thinking Labs

Want to share your prototypes? Tag us in your posts @prototypethinkinglabs so we can feature you on our social media channels.

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