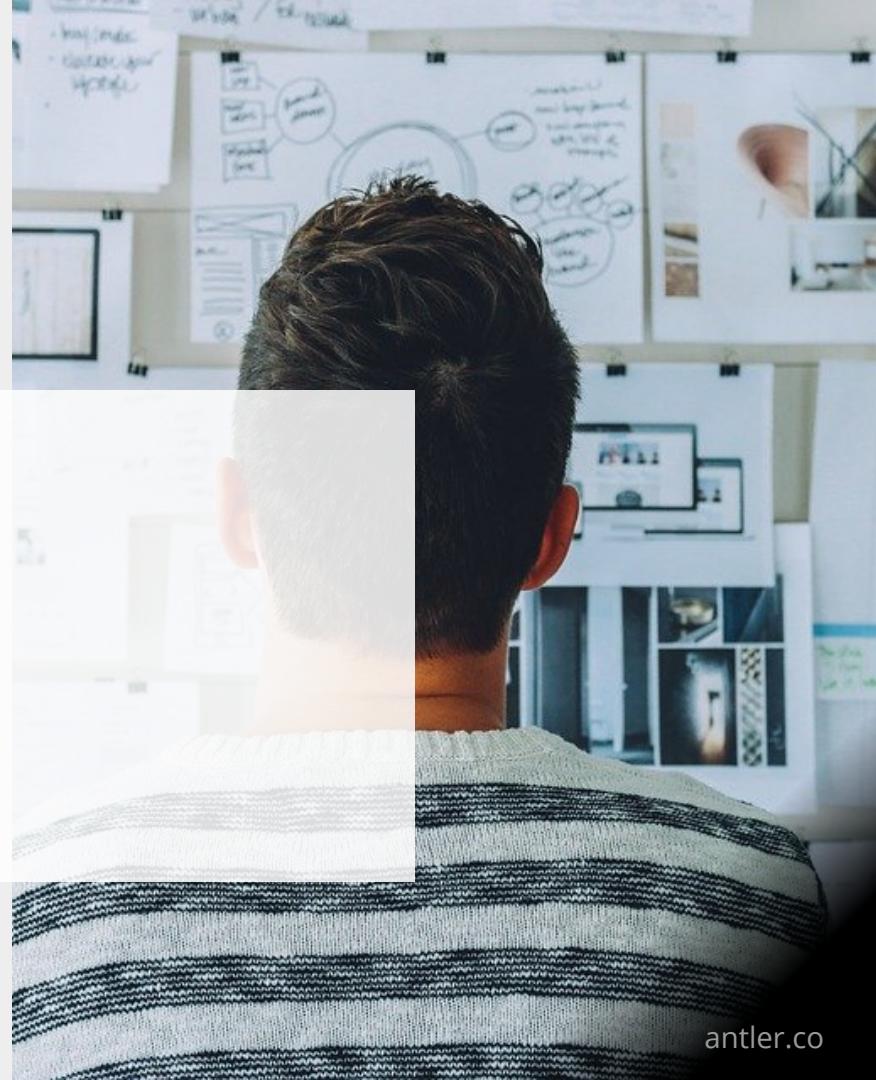




Antler

Design Thinking for Startups



Introduction

This deck introduces the key concepts of Design Thinking drawing heavily on material from the d.school at Stanford University (The Hasso Plattner Institute of Design).



EMPATHIZE



DEFINE



IDEATE



PROTOTYPE



TEST



IMPLEMENT

Design Thinking provides a human-centric approach to address problems worth solving.

Traits Of Great Design Thinkers



EMPATHY

Ability to imagine the world from multiple perspectives – those of colleagues, clients, end users, and customers (current and prospective). By taking a “people first” approach, design thinkers can imagine solutions that are inherently desirable and meet explicit or latent needs. Great design thinkers observe the world in minute detail. They notice things that others do not and use their insights to inspire innovation.



INTEGRATIVE THINKING

Ability to see all of the salient – and sometimes contradictory – aspects of a confounding problem and create novel solutions that go beyond and dramatically improve on existing alternatives.



OPTIMISM

No matter how challenging the constraints of a given problem, at least one potential solution is better than the existing alternatives.



EXPERIMENTALISM

Significant innovations don’t come from incremental tweaks. Design thinkers pose questions and explore constraints in creative ways that proceed in entirely new directions.

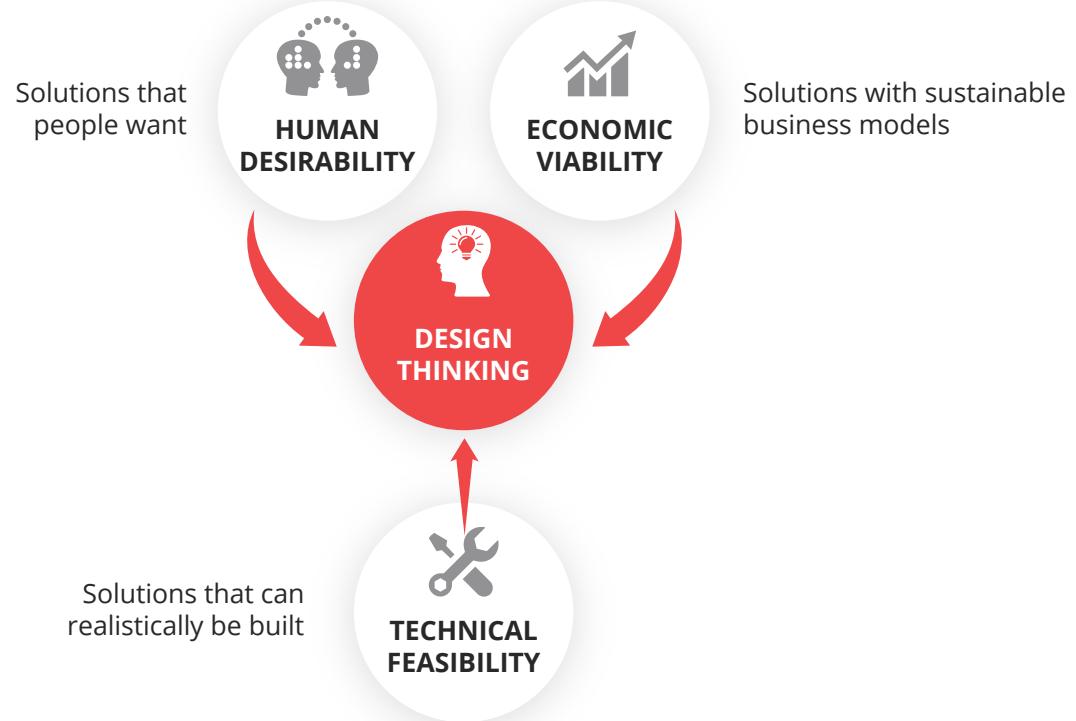


COLLABORATION

The increasing complexity of products, services, and experiences has replaced the myth of the lone creative genius with the reality of the enthusiastic interdisciplinary collaborator. The best design thinkers don’t simply work alongside other disciplines; many of them have significant experience in more than one.

Integrative thinking

Design Thinking sits at the intersection of human desirability, technical feasibility and economic viability



Adopting design thinking mitigates startup failure

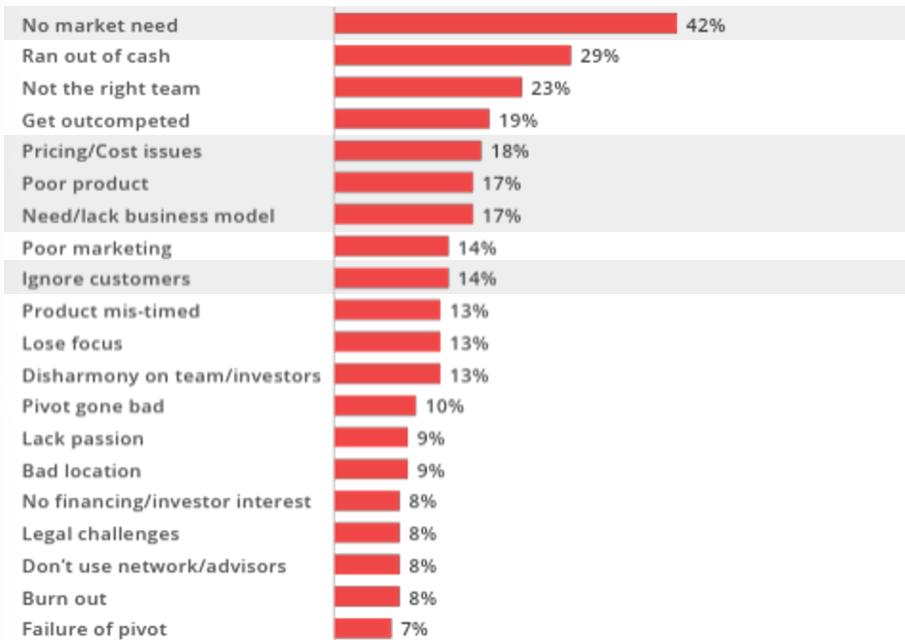
The Design Thinking approach directly seeks to address several of the key reasons why startups fail.

The #1 reason is “no market need” which the deep, empathy driven interviews used in Design Thinking focus on establishing.

Also note Y-Combinator’s tagline: “Make something people want”

Top 20 reasons startups fail

Based on analysis of 101 startup post-mortems



Relationship between design thinking, lean startup method and agile



DESIGN THINKING



LEAN STARTUP MODEL



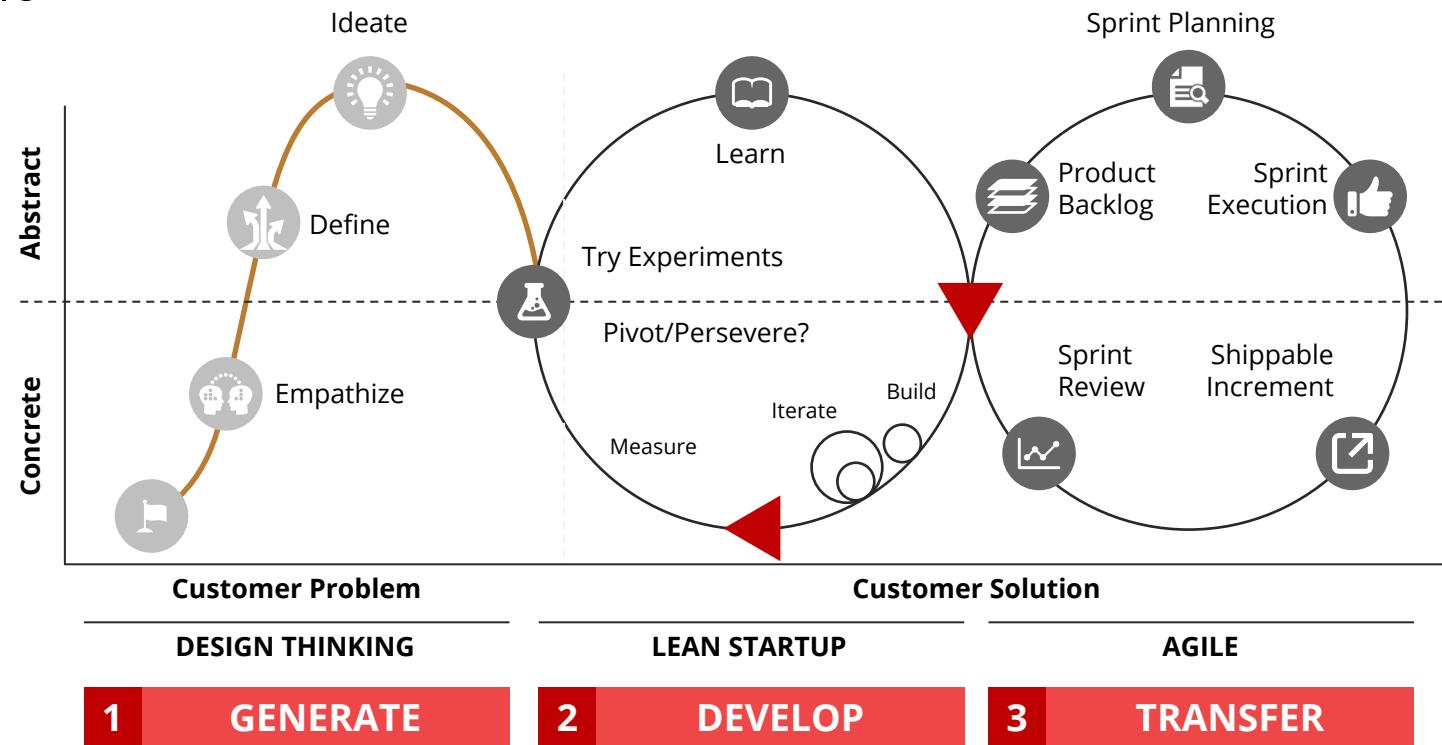
AGILE

"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, CEO of IDEO

"Lean startup is a methodology for developing businesses and products, which aims to shorten product development cycles and rapidly discover if a proposed business model is viable; this is achieved by adopting a combination of business-hypothesis-driven experimentation, iterative product releases, and validated learning."— Wikipedia

Agile is a way of working, based on an iterative development, incremental delivery and ongoing reassessment of a product.

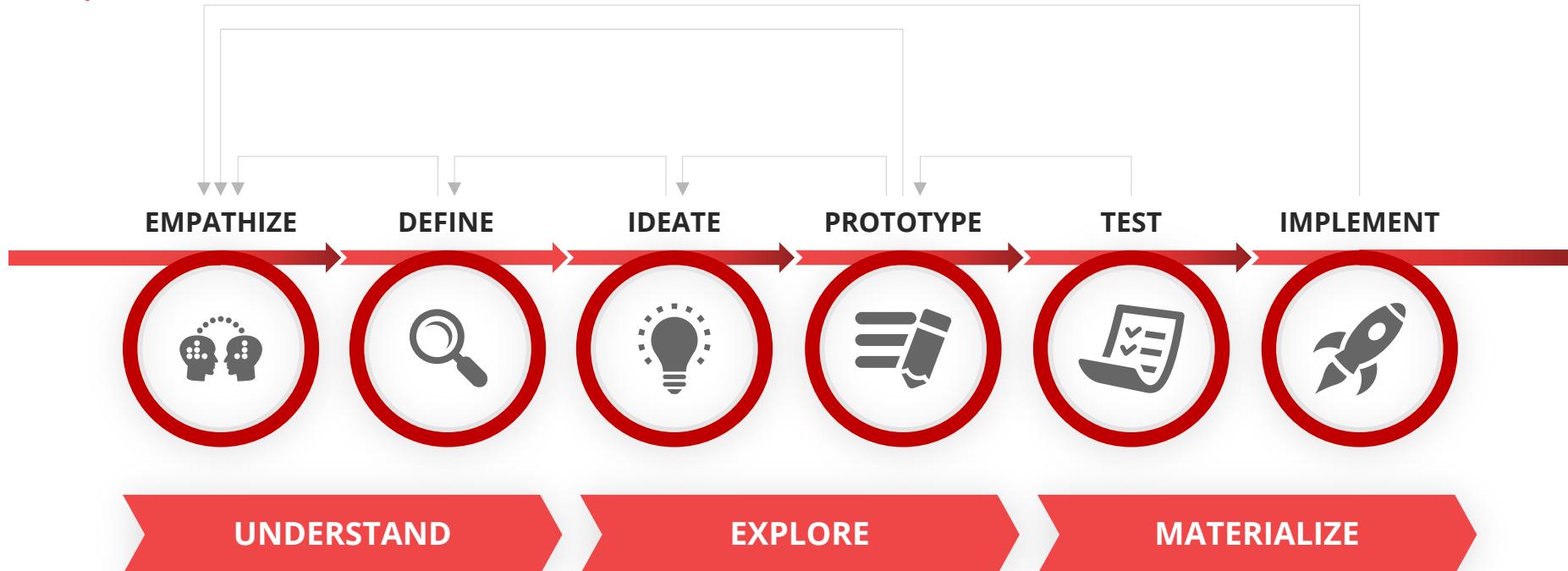
Making sense of design thinking, lean startup, agile



For more information on this research, see "Enterprise Architects Combine Design Thinking, Lean Startup and Agile to Drive Digital Innovation."

Source: Garter https://www.gartner.com/binaries/content/assets/events/keywords/enterprise-architecture/epaeu17/enterprise_architecture_and_tech-innovation.pdf

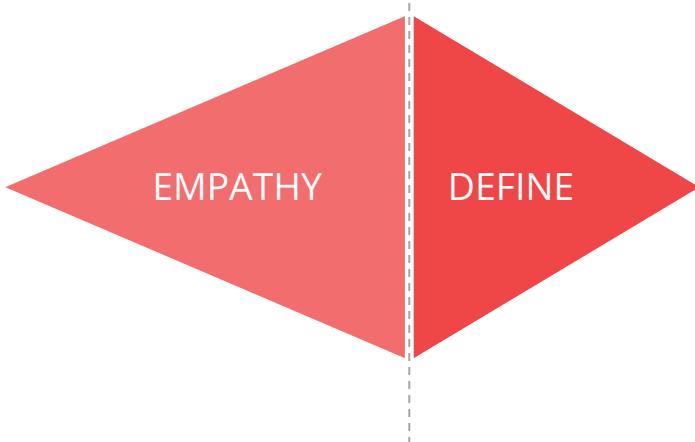
Design thinking phases



Alternation of divergent and convergent processes

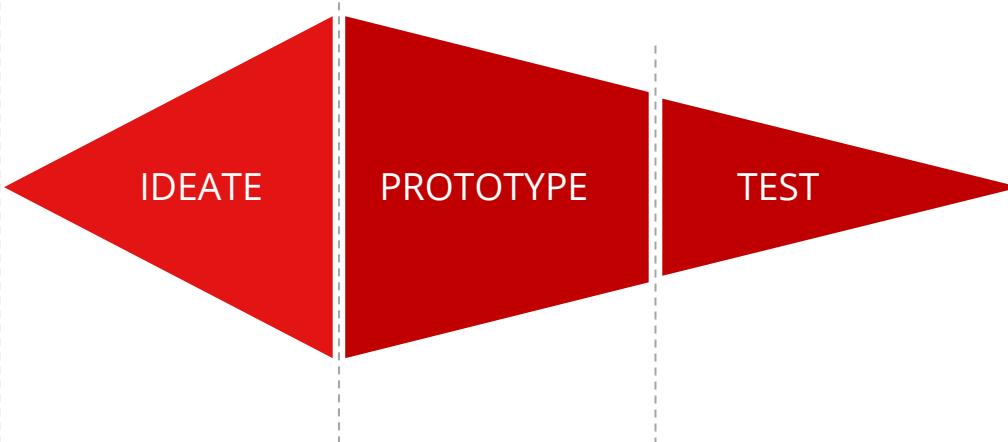
Understand

Understanding ends in **INSIGHT**



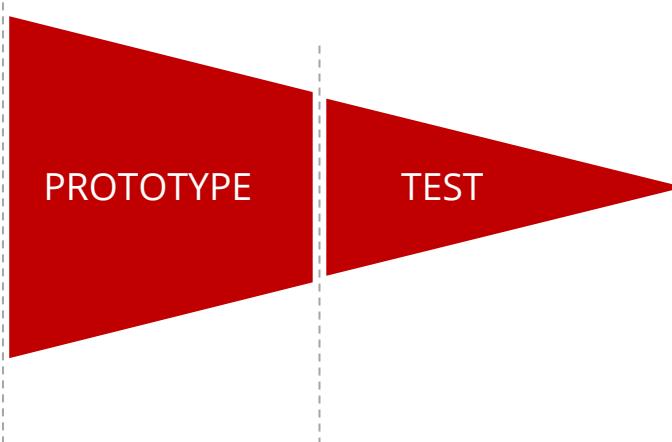
Create

Creation ends in **IDEAS**



Deliver

Delivery ends in **REALITY**



Start with the assumption
that the best way to do
something is not the way it's
being done right now.

Aaron Levie, Box



Empathize



- During the “Empathize Phase”, you seek to acquire a deep understanding of the problem you are looking to solve
- Focus on solving issues that really matter. These are sometimes called “painkillers” compared to “vitamins”
- “Painkillers”
 - Solutions to burning issues that frustrate users and that they are willing to pay to see resolved (payment can mean cash, parting with personal information or accepting advertising)
- “Vitamins”
 - Nice to have solutions, often of an incremental nature, that users may or may not be willing to pay for
- Adopt an ethnographer’s mindset by walking in the customer’s shoes, trying to set aside your own views / assumptions
- Focus on customer painpoints - “painstorming” at every step of the customer journey

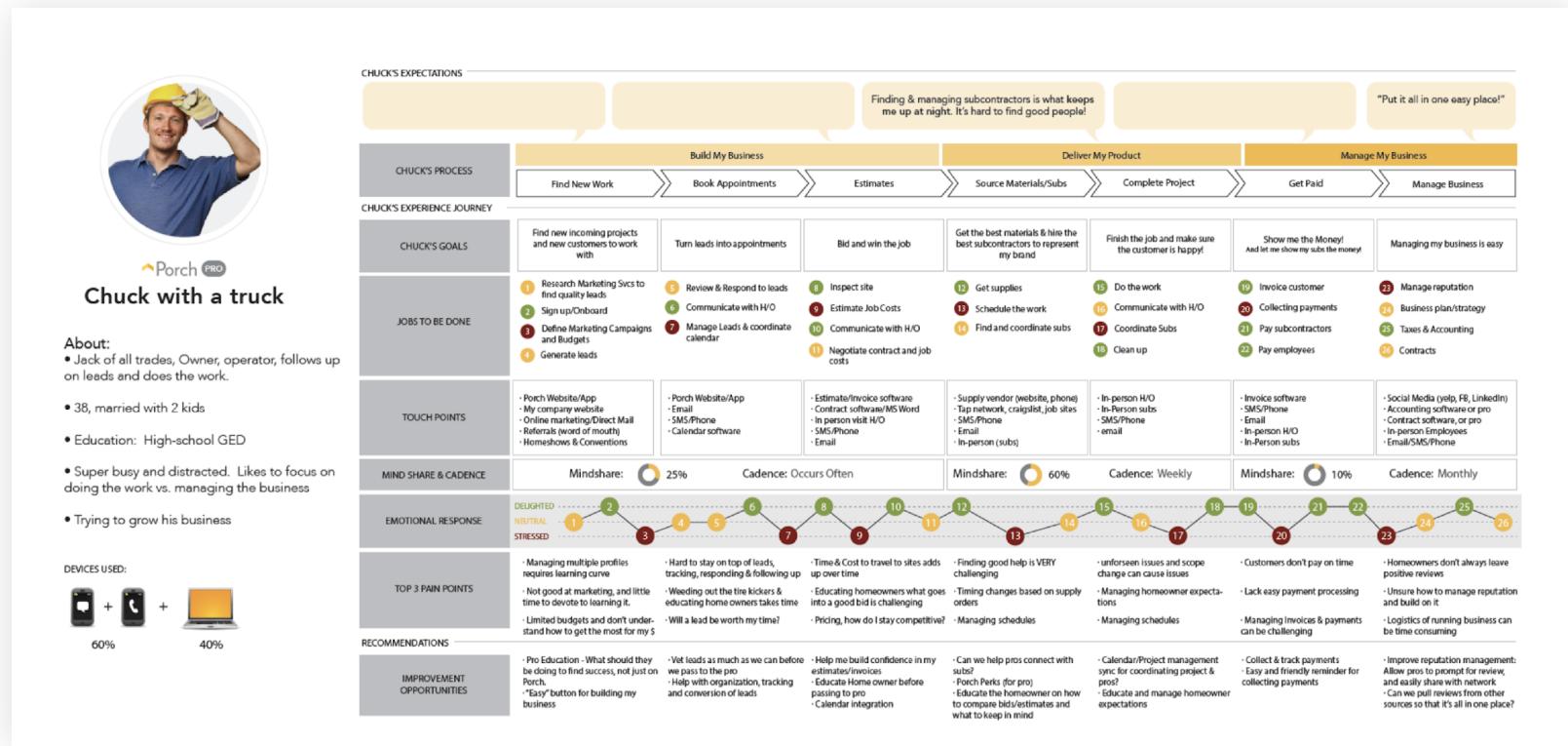
Empathize: Interviewing



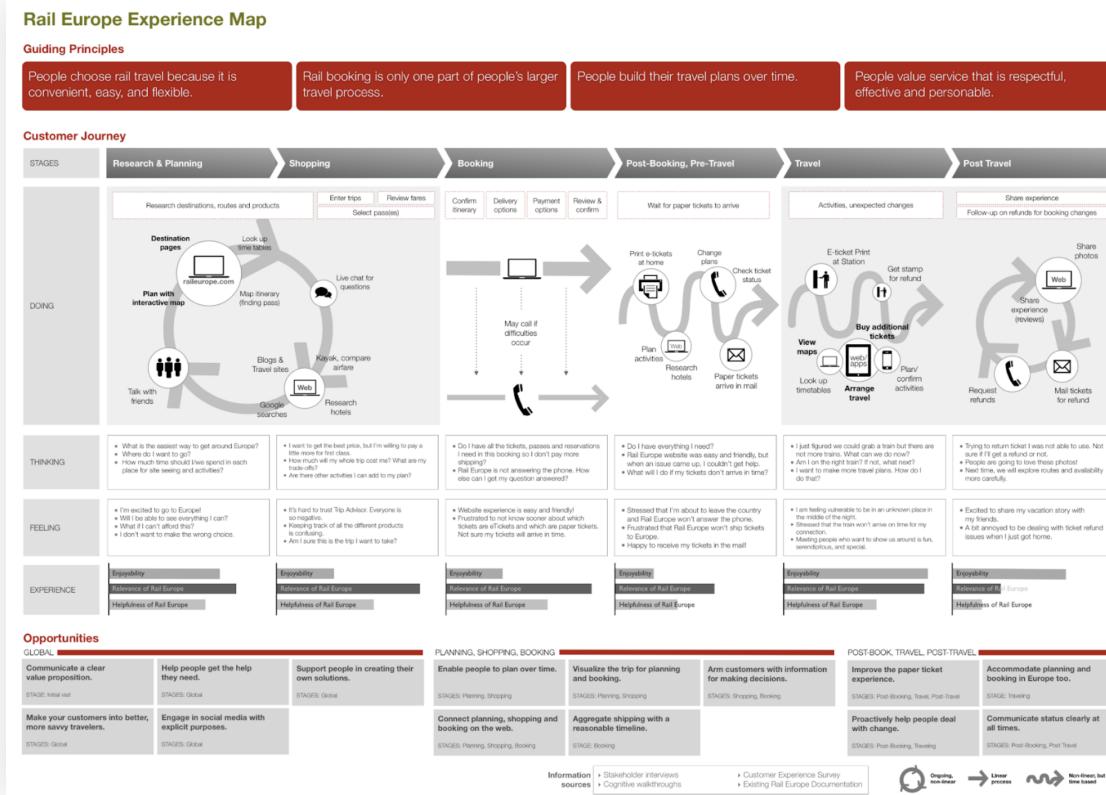
- Conduct a large number of empathy driven interviews with different stakeholders (rule of thumb: 50-100 interviews)
- Ideally one person doing the interviews with another person capturing insights
- Seek to capture:
 - What are people doing?
 - How are they doing it?
 - Why are they doing it?
 - How does it make them feel (e.g. angry, happy, frustrated, satisfied, stressed, content, bored, wasteful, ...)?
- Don't be afraid of silence (let people think)
- Look for inconsistencies (what people say versus what they do)
- Observe non-verbal cues (body language)

Example of customer journey mapping (1)

Consider building customer journey maps to understand processes in detail and capture customer painpoints



Example of customer journey mapping (2)



Define



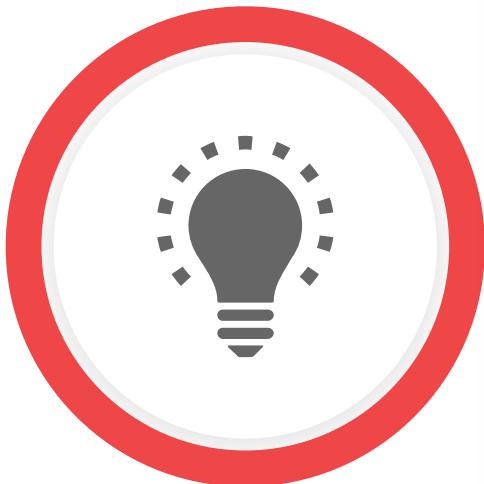
- During the “Definition Phase”, you put together all the information from the interviews to draw design insights
- Make sure that you define the problem / opportunity from the perspective of potential customers
- Stay clear of designing actual solutions during this phase. Instead articulate design principles that can guide multiple different solutions.
- Example:
 - From “Users are frustrated by the lack of ability to customize a product or service.”
 - To “Integrate product customization as an optional step in the purchase process.”
- Try to avoid long laundry lists – focus on highlighting one or a few customer painpoints and their associated design principles
- If no novel / breakthrough opportunities become obvious, you may be at risk of later on designing a “me too” solution

**FALL in LOVE with the
PROBLEM**
not with the solution.

Uri Levine, Co-founder of Waze



Ideate



- During the “Ideation Phase”, you are generating multiple alternatives to solve the problem / meet the need / overcome the painpoint
- Similar to during brainstorming, ideation is not the time for critical evaluation or narrow focus
- Don’t become locked into a single solution: “Fall in love with the problem, not with your solution”
- Create “Fluency” (volume of ideas) and “Flexibility” (variety of ideas)
- At the end of the ideation process, rank the ideas as decide which ones to prototype

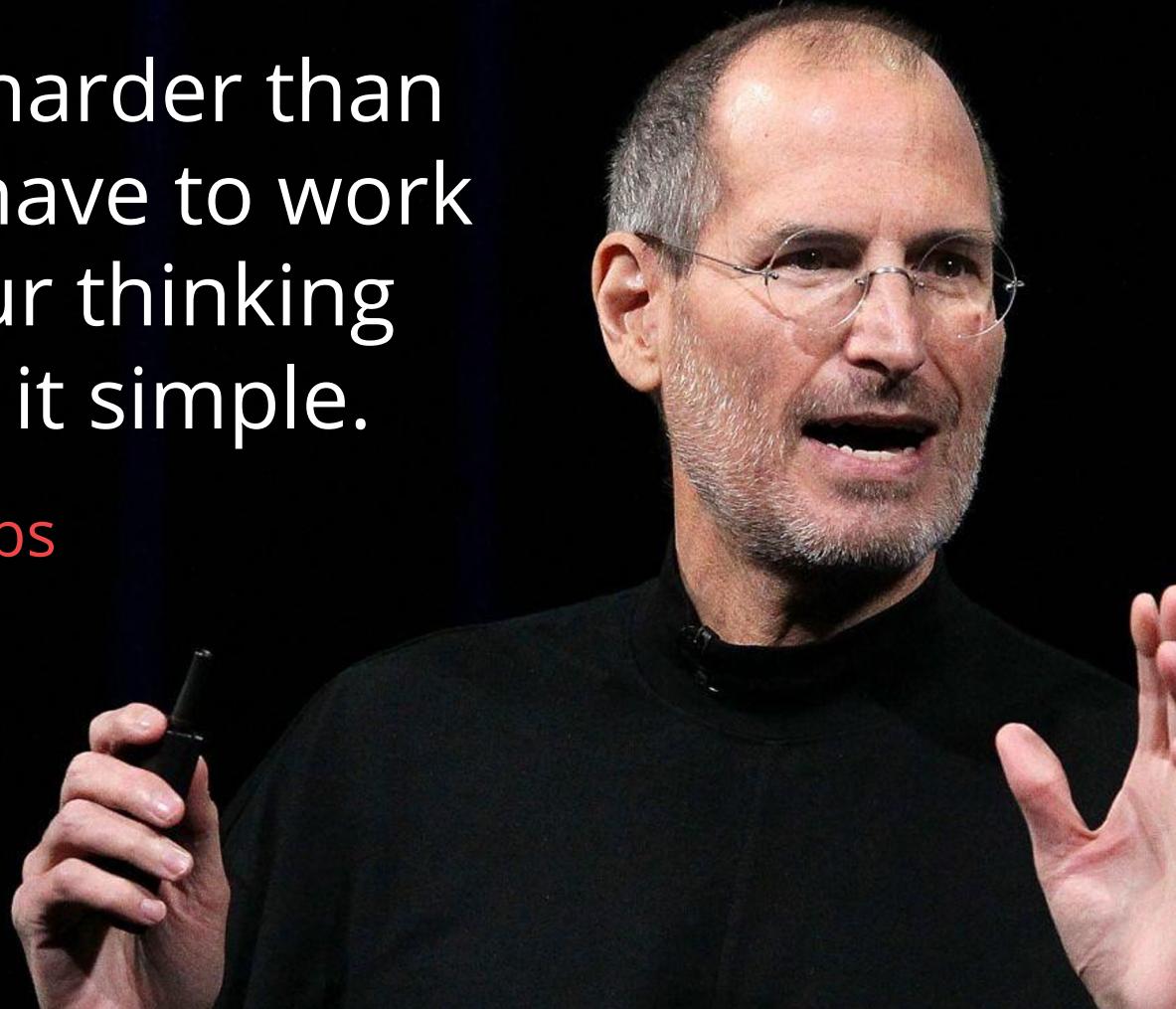
Building a good customer experience
does not happen by accident.
It happens by **DESIGN**.

**Clare Muscutt,
Women in CX &
Former Sainsbury Head of CX**



SIMPLE can be harder than
COMPLEX. You have to work
hard to get your thinking
clean to make it simple.

Steve Jobs





A GOOD DESIGNER
finds an elegant way to put
everything you need on a
page. A GREAT DESIGNER
convinces you half that shit
is unnecessary.

Mike Monteiro, Art Designer and Director

You have to make every
single detail **PERFECT**.
And you have to limit
the number of details.

Jack Dorsey, Twitter



Prototype



- During the “Prototyping Phase”, you are putting your ideas into the real world in order to learn. Design thinking is “learning by making” – i.e. “building in order to think” rather than “thinking what to build”
- The faster the ideas enter the real world as prototypes, the faster we are able to learn. Hence, initially focus on “low-fidelity mockups” to quickly explore multiple possibilities at low cost
- Good prototypes will fuel discussion and lead to deeper empathy with customers’ needs
- Consider prototyping multiple versions of a key feature guided by your design principles
(i.e. not just complete prototypes)
- You can also reverse the game by asking users to prototype – could be as simple as pen and paper to draw wireframes
- With increased confidence from testing, you can move towards “high-fidelity mockups” – near finished product look and feel

Prototype: low-fidelity versus high-fidelity prototyping (1)



- What is a prototype? – A visual / real world expression of designer's intent
- Low-Fidelity Prototype
 - Emphasizing functionality over look and feel, omits lots of details
- High-Fidelity Prototype
 - Closer to finished product in look and feel
- Fidelity dimensions
 - Breadth of functionality: % of functionality covered
 - Depth of functionality: degree of functionality (high-level or end-to-end)
 - Look: visual design
 - Feel: interactivity / navigation / information input

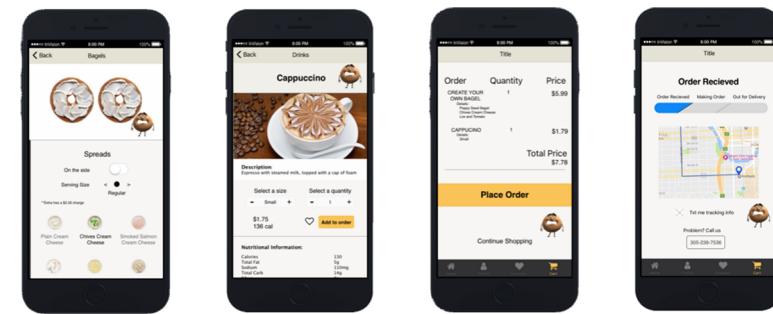
Prototype: low-fidelity versus high-fidelity prototyping (2)

Low-Fidelity Prototype



VS

High-Fidelity Prototype

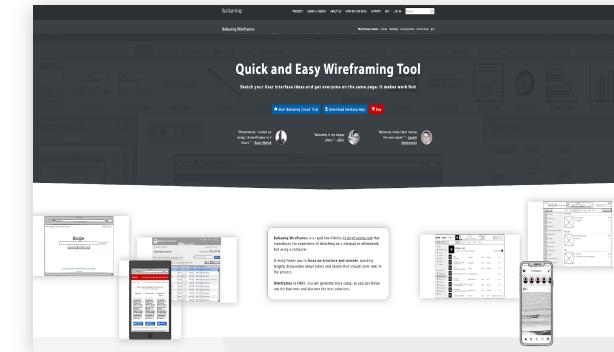
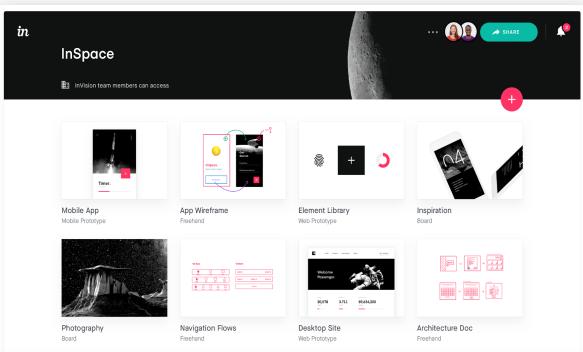


Simple wireframes capturing key functionality

Full visual design with clickable interaction

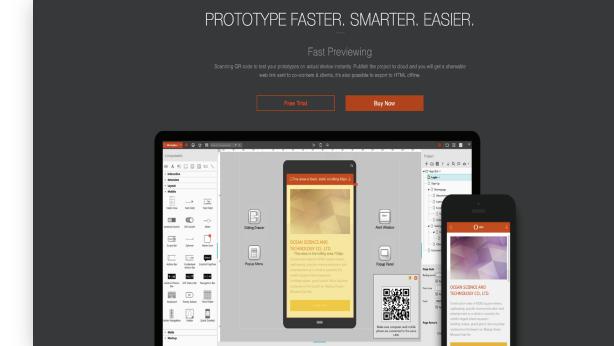
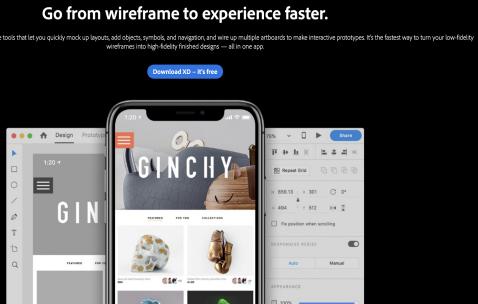
Prototype: sample software tools

InVision
(low fidelity
& high
fidelity)



Balsamiq
(low
fidelity)

AdobeXD
(low fidelity
& high
fidelity)



MockPlus
(low fidelity
& high
fidelity)



Perfection is achieved, **NOT WHEN THERE IS NOTHING MORE TO ADD**, but when there is **NOTHING LEFT TO TAKE AWAY.**

Antoine de Saint-Exupery
Author



User experience matters a lot.
More than most people realize.
The best-designed user
experiences get out of the way
and just help people get shit done.
Less is more.

**IF YOU HAVE TO EXPLAIN IT,
YOU'VE ALREADY FAILED.**

Jason Goldberg, Fab.com

Test



During the “Testing Phase”, you are gathering feedback from users and deepening your empathy further (rule of thumb: testing with 50-100 people across low-fidelity and high-fidelity prototypes)

- In “human-centered design” you test not only to learn about your solution but also to continuously learn more about your users – things you may not have discovered during the “Empathize phase”
- Remember to focus on “showing” rather than “telling” - listen to the user talking through the prototype experience rather than you guiding the user through your own storytelling
- Look for “uses” and “misuses” to figure out where your product isn’t intuitive
- Follow up with empathy seeking questions: “how did that make you feel?”, “why did you do that?”, “what was confusing?”, “what was unclear?”, “what could be better?”



The great thing about the internet is you can launch a product, and **within just a few hours, people will tell you what they think about it.**

Susan Wojcicki, CEO of YouTube

Don't solicit feedback just for validation purposes.

You want to tell the people who can help move your idea forward, but if you're just looking to your friend, co-worker, husband or wife for validation, be careful.

It can stop a lot of multimillion-dollar ideas in their tracks in the beginning.

Sara Blakely, Founder of Spanx



Test: Sample techniques



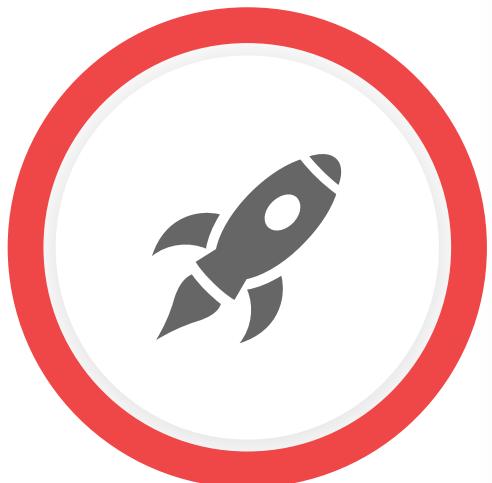
FEATURE LADDERING

- Ask potential customers what features matter.
- Then ask them to ladder the features to identify the most important ones.
- Use laddering to figure out key features and priority in visual design and the company development roadmap.

"POWERS OF 10"

- Using scale as a reframing exercise.
- Test your assumptions by scaling them up and down.
- E.g., for design of a shopping process – online shopping for toilet paper (low value) versus a flat screen TV (medium value) versus a house (high value).
- Does what matters for customers change with scale?

Implement



- During the “Implementation Phase”, you are building the MVP based on the confidence you have gained during the iterative prototyping and testing phases
- The MVP is usually close to the high-fidelity mock-up after iterative testing and development
- The iterative cycle then continues with further feedback from customers, tracking of live KPIs and the introduction of new features / product versions

Further resources (1)



Tim Brown, IDEO CEO, on Design Thinking

Further resources (2)



The image shows the front cover of the book 'Thinking' by Tim Brown. The cover has a pink background with white cloud-like shapes. The title 'Thinking' is written in a large, bold, black font inside one of the clouds. Below it, 'by Tim Brown' is written in a smaller, black font. A quote is displayed in another cloud: 'Thinking like a designer can transform the way you develop products, services, processes – and even strategy.' At the bottom left, there is a small circular logo with a person icon and the text 'Photo courtesy of IDEO'. At the very bottom, it says 'hbr.org | June 2008 | Harvard Business Review 85'.

Introduction to Design Thinking



September 12, 2012

Design Thinking is one of the more recent buzz words in the design community. In this introductory article, I will investigate what Design Thinking is, what its main characteristics are, and take a look at the process and the methods associated with it. I will also take a brief look at the history of Design Thinking.

What Is Design Thinking?

First, I will outline what Design Thinking is all about. There are various ways of teaching and practicing Design Thinking, and definitions and descriptions vary accordingly.

A Design Methodology

Basically, Design Thinking is a design methodology. It differs from traditional design approaches in specific ways described below. For example, some authors characterize Design Thinking as more creative and user-centered than traditional design approaches.



Anonymous



SAP UX Day 2019: Design Thinking Your Life

At this year's SAP UX Day in Karlsruhe, Germany, more than forty people attended a Design Thinking workshop...

456 | Imke Vierjahn



Impact Week honored as "Excellent Place" in 2018

Impact Week, a non-profit intercultural Design Thinking program, was recognized as one of 100 "Excellent Places in the..."

Lenny Rachitsky's questions for product-market fit (various phases)



- How would you feel if you could no longer use this product:
Very Disappointed, Somewhat Disappointed, Not Disappointed?
- Compared to other ways you do X [where X is some essential function of your product], using this product to do X is generally:
Much Better, Somewhat Better, Neither better nor worse, Somewhat Worse, Much Worse?
- The last time you did X, what product or tool did you use to do it, and why?
- Walk me through the last time you did X [where X is some essential function of your product]. For each key decision you made along the way, tell me a bit about why you made those decisions.
- What are the different products you use to do X? What are the best and worst parts of using those products? The last time you did X using this product, why did you use it instead of something else?
- Why did you try this product in the first place? What were you hoping it would do for you? How well has it delivered on that hope?

Contacts



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