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Second
Edition

UX Strategy

Product Strategy Techniques for
Devising Innovative Digital Solutions



Jaime Levy

UX Strategy

User experience (UX) strategy lies at the intersection of UX design and business strategy, but until now, there hasn't been an easy-to-apply framework for executing it. This hands-on guide introduces lightweight product strategy tools and techniques to help you and your team devise innovative digital solutions that people want.

Author Jaime Levy shows UX/UI designers, product managers, entrepreneurs, and aspiring strategists simple to advanced methods that can be applied right away. You'll gain valuable perspective through business cases and historical context. This second edition includes new real-world examples, updated techniques, and a chapter on conducting qualitative online user research.

- Define value propositions and validate target users through provisional personas and customer discovery techniques
- Explore marketplace opportunities by conducting competitive research and analysis
- Design experiments using rapid prototypes that are focused on the business model
- Conduct online user research to gain valuable insights quickly on any budget
- Test business ideas and validate marketing channels by running online advertising and landing page campaigns

"If your digital design toolkit needs punching up or you're curious about more strategic approaches to apply to your design practice, this book is absolutely for you."

—Phil Clevenger
Sr. Director of UX Design, Adobe

"Jaime shows you how to turn deep research into product strategy that works for real teams in real contexts."

—Indi Young
Author of *Mental Models* and
Practical Empathy
(both Rosenfeld Media)

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Praise for *UX Strategy*, 2nd Edition

If you want to learn how to build products that people want and need, this book is a must read. UX Strategy covers what to do before designing and coding—market research, validating business ideas, prototyping, user research, and more.”

**STEVE BLANK, COCREATOR OF THE LEAN STARTUP,
FATHER OF MODERN ENTREPRENEURSHIP**

Jaime Levy’s UX Strategy was a landmark book in the field of UX when it came out—a must-have in anyone’s library. And now as the field itself evolves and matures, it’s thrilling to see her updated perspective on UX strategy in this second edition. This is the type of book that gets better and better each time you dive in, and now with updated content, there’s a wealth of new material to absorb. Clear, practical, and from the heart: UX Strategy continues to deliver on its promise of guiding strategy for digital products in a modern era.”

**JIM KALBACH, CHIEF EVANGELIST AT MURAL AND AUTHOR OF
MAPPING EXPERIENCES AND THE JOBS TO BE DONE PLAYBOOK**

Life’s too short to design an amazing UX for something that nobody wants. Save your time and resources by first practicing the lean strategy techniques advocated in this book.”

**ASH MAURYA, AUTHOR OF RUNNING LEAN
AND CREATOR OF THE LEAN CANVAS**

Designers are always looking for a way to have more impact with their work. Jaime’s book is a foolproof guide for leveling up your existing skills to inform product strategy.”

ANDY BUDD, DESIGN FOUNDER, SPEAKER, ADVISOR, AND COACH

“Stuffed full of best practices from leading thinkers across a range of disciplines, Jaime Levy’s UX Strategy is essentially an MBA-in-a-book for any designer. Her own stories and guidance make for a friendly and personable read.”

**STEVE PORTIGAL, USER RESEARCH CONSULTANT
AND AUTHOR, *INTERVIEWING USERS AND
DOORBELLS, DANGER, AND DEAD BATTERIES***

“Jaime Levy provides an easy-to-follow, no-nonsense, pragmatic, step-by-step guide on how to develop and test innovative digital product ideas and value propositions in a lean and efficient way. Full of tips and tricks, detailed explanations, and very tangible advice—in short, a great, engaging guide for all budding entrepreneurs, POs, UX designers, and others setting out in human-centered product development.”

**SVENJA VON HOLT, PRODUCT STRATEGY CONSULTANT AND
DIRECTOR OF INNOVATION STRATEGY, PORT BLUE SKY (BERLIN)**

“This followup to the earlier edition further connects the theory of user experience strategy with a practical, hands-on, business-savvy approach. It provides both the strategy and tactics needed to create products and services that can not only shine, but continue to grow. A must read for any product designer, project manager, entrepreneur, or any other innovative technologist.”

**PAUL LUMSDAINE, UX DESIGNER AT NASA
JET PROPULSION LABORATORY**

“Jaime Levy’s view on the strategic role of product design helped us to transform the curriculum within our design department. My students love her book because she teaches them in her unique punk rock way how they can make a big impact as creatives.”

**PROFESSOR RETO WETTACH, UNIVERSITY OF APPLIED SCIENCES
POTSDAM, SERVICE DESIGNER AND DESIGN STRATEGY CONSULTANT**

“No microinteraction is going to save your product from a bad UX strategy. Read Jaime’s book so that you’re first designing the right thing, then worry about designing it right.”

**DAN SAFFER, AUTHOR OF *MICROINTERACTIONS*
AND *DESIGNING FOR INTERACTION***

“Jaime executed breakthrough UX long before it was called UX. Read this book and learn how to get out of your customers’ way, and create value for everyone who touches your stuff!”

**DOUGLAS RUSHKOFF, MEDIA THEORIST, AUTHOR
AND HOST OF TEAM HUMAN, AUTHOR OF PRESENT
SHOCK AND PROGRAM TO BE PROGRAMMED**

“UX Strategy provides a templated approach for gaining strategic alignment, which helped my team at Boeing to dial in on the source of business problems and the opportunity landscape. By meeting the business upstream, we started to build cross-functional trust and found the footing to connect customer goals and outcomes to higher-level business objectives.”

ANDREW WILBUR, PRODUCT DESIGN LEAD, THE BOEING COMPANY

Second Edition

UX Strategy

*Product Strategy Techniques for
Devising Innovative Digital Solutions*

Jaime Levy

Beijing • Boston • Farnham • Sebastopol • Tokyo

O'REILLY®

UX Strategy

by Jaime Levy

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[*Preface*]

STRATEGY IS ABOUT CONNECTING THE DOTS. IT REQUIRES YOU TO LOOK at what's happened in the past and what's going on in the present to make better guesses about the future. People who do strategy need to be inquisitive, objective, and fearless. They need to be risk-takers who, metaphorically speaking, stalk and kill their prey by going for the throat. Just like the black-backed jackal on the cover of the book.

User experience (UX) strategy lies at the intersection of UX design and business strategy. It is a practice that, when done empirically, provides a much better chance of a successful digital product than just crossing your fingers, designing some wireframes, and then writing a bunch of code.

This book presents a solid framework on the practice of UX strategy. It is geared specifically for inventing innovative products and takes you through numerous lightweight techniques that you can use regardless of your work environment. The basic principles of business strategy do not need to be a mystery requiring somebody with an MBA to understand. Strategy, just like design, is something that you can master only by practicing it.

Who Should Read This Book?

This book addresses the large knowledge gap between product design and business strategy. It was written with the following types of product makers in mind.

Product/UX strategist, product manager/owner, entrepreneur, or member of a corporate innovation team

You want to lead your team—designers, developers, marketers, and so on—to craft a successful product with a frictionless UX. However, there are limitations on your time, cash, and other resources, and that means focusing your team's efforts on efficient

product strategy techniques. You understand Lean Startup principles and want to cut corners on research and evaluation, but you also know that you need to make decisions based on a sound strategy. This book will provide you and your team with the necessary lightweight tools for testing business ideas, conducting competitive research, and validating marketing channels.

Product designer, UX/UI designer, or UX researcher

You're frustrated. You feel like you are a cog in the wheel making design or research deliverables. You want your work to be more innovative and holistic, but you aren't involved with product definition at a strategic level. You fear that you are hitting a career wall because you don't have a business degree or marketing expertise. This book will teach you how to push back when you find yourself in the following situations:

- You're assigned to create user flows and wireframes for a product that you believe is just a rip-off of an existing one. You don't want to spend the next six months reinventing the wheel. This book will show you how to be innovative by systematically cherry-picking functionality from your competitors and influencers and integrating them with a less-is-more approach.
- You have a stakeholder who is 100% certain that their product vision is right, and you are told to implement it as is. You want to do market research to help them deviate from their original vision, but they won't give you or your team the budget. This book will demonstrate different options for being entrepreneurial and collecting evidence regardless of the situation.
- You have an existing product and are told to come up with new features that will help acquire new customers and increase engagement. This book will show you how to design experiments using rapid prototypes for validating concepts through online user research studies and landing page smoke tests.

Why I Wrote This Book

What has kept me on my toes while being a product maker is being a part-time professor of the evolving discipline of user interface (UI) design and product strategy. Since 1993, I have taught everything from graduate-level courses for engineering and psychology students to adult education courses for working professionals who wanted to reposition their career tracks with more marketable skill sets. But there was never a perfect book in any of those situations that gave my students everything they needed. Instead, I was constantly hounded to share my presentation decks, sample documents, and templates. I wrote this book to finally consolidate into one resource everything I know about the practice of UX/product strategy, which I learned from my work with startups, agencies, and enterprises.

I also hope that aspiring strategists will gain from my years of professional experience. I've had a lot of ups and downs in my professional and personal life, and they have informed my attitude toward trial and error. This is why even from the beginning I didn't want to write a dry business or technology book. I wanted to write a book that chronicles the vitality and fluidity of what we actually experience in the real world of technological advances. I wanted to depict the entrepreneurial spirit, which isn't just about success or techniques that always work. I wanted to share that journey with the hope that you won't get as scuffed up as I did along the way.

How This Book Is Organized

I organized this book based on how I have fine-tuned my process over the years. Therefore, the first way to read this book is as it was originally intended—as a how-to guide to devise an innovative product. If that's how you choose to read it, you'll want to begin with an idea or problem you hope to solve through an interface, because the only way to learn how to swim is to get in the pool and get comfortable with the unknown. As you and your team move through the chapters, you'll unlock techniques in a linear order. Then, when you're acquainted with all the techniques, you'll be able to practice them in the future in whatever order works best.

The book has 10 chapters. Chapter 1 establishes what UX strategy and product strategy are. Chapter 2 introduces the UX strategy framework that will shape all the tools and techniques in this book. Chapters 3 through 9 teach you how to perform product strategy techniques. And finally, Chapter 10 wraps everything up with a brief conclusion.

What Is the UX Strategy Toolkit?

This book comes with a complimentary toolkit so that you and your teams can begin using it immediately for nailing a valid strategy for your product. I've been refining these tools for years with clients, using them for both collaboration and output deliverables. They might seem unwieldy at first, but they are a crucial starting place to learn foundational tactics. As you read, you'll come across in-depth explanations of how each tool works and the benefits that each one provides.

You can access the free UX Strategy Toolkit at: <https://userexperiencestrategy.com>.

Make a copy of this workbook. If you prefer Google Sheets, be sure you are signed into your Google account and click File>Make a copy. If you prefer Microsoft Excel, click File>Download>Microsoft Excel (.xlsx). With your own copy, you will have editing and sharing privileges, so by all means, share it with your team. There are tabs at the bottom of the spreadsheet with which you can toggle between the different tools.

UX strategy requires collaboration among team members and stakeholders. It doesn't matter whether you're a student in a classroom, a fledgling startup, or a cross-functional team at an enterprise. The techniques don't work unless you all share the common goal of discovering a solution through experimentation. The best way to collaborate in this digital age is through cloud-based tools, and the cloud-based toolkit for this book will help you to align your onsite and remote teams to a product vision. It's also great because you can work together synchronously and asynchronously in the same document.

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Fast-forward five years. Because of the book's success, I enjoyed speaking at numerous strategy and design conferences and meeting product makers worldwide. I also gained new insights and sharpened my product strategy techniques. I decided to write the second edition and found myself working alone, again, in libraries until the COVID-19 pandemic struck. That was when I coerced a graduate student of mine named Jessica Luponow to serve as my researcher and muse. We met for almost all

of 2020 on Zoom, chipping away at the shared Google documents of each chapter. Jessica has a sharp mind, a dry wit, and insanely fast research skills. You can witness some of our many fun and synergistic writing sessions by searching “UX Strategy (2nd Edition) Book Editing Sessions playlist” on YouTube.*

I also want to extend my gratitude to the following people:

- Thanks to Ena De Guzman, Nico Filip-Sanchez, Lane Goldstone, Jeffrey Head, Ulrich Höhfeld, Jared Krause, Darren Levy, Sebastian Philipp, Douglas Rushkoff, Bita Sheibani, Matt Stein, Eric Swenson, Svenja von Holt, Indi Young, Marvin Zindler, and my Spring 2020 UX Strategy class at the University of Southern California.
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- Thanks to my awesome son Terry for giving me that special *raison d'être*. I dedicate this book to him and my dear mother, Rona.

Thank you, Los Angeles and Berlin, for being wonderful cities to live and write in.

**JAIME LEVY
LOS ANGELES/BERLIN**

* Jaime Levy and Jessica Luponow, “UX Strategy (2nd Edition) Book Editing Sessions,” YouTube, 2020, <https://oreil.ly/EzdoR>.

What Is UX Strategy?

*Two roads diverged in a wood, and I—
I took the one less traveled by,
And that has made all the difference.**

—ROBERT FROST

LAST YEAR, I WAS IN A BAD MOOD AFTER A SUNDAY AFTERNOON MEETING with a colleague who needed help planning a workshop. Maybe it was because I disdain working on weekends. Maybe it was because commuting from the Eastside to the Westside in Los Angeles is always a horrible idea. Or maybe it was because the thought of leading a glorified brainstorming session for C-suite execs just never sits well with me. Whatever the reasons, my mood got even worse when the car behind me hit mine so hard that my half-eaten foil-wrapped burrito flew from my backseat and into my windshield.

The driver and I immediately got off the jammed freeway to safely deal with the incident on a residential street. My car was so smashed up that the gas tank had become unhinged. Fortunately, neither of us was hurt. The other driver was insured and even apologetic. Anyway, while I stood on the side of the road feeling all my feelings with this stranger, I knew that the next task was to figure out how to process my first claim with my high-tech car insurer Metromile.

Metromile is a San Francisco-based mid-sized startup that aims to disrupt the auto insurance sector with their innovative business model and use of telematic technologies. Instead of charging customers a fixed premium for a yearly policy, they use a low monthly base rate plus a pay-per-mile pricing fee. Even though I live in Los Angeles, I actually don't drive very much because I don't have a daily commute

* Robert Frost, "The Road Not Taken," *Mountain Interval* (New York: Henry Holt), 1916.

to a full-time job. So in 2018, I decided to see how much my monthly payments would go down if I switched from a traditional insurance provider to this tech disruptor. A few days after I signed up, I received a small wireless Metromile Pulse device in the mail. Then I plugged it into my car's onboard diagnostic port for tracking my logistical data. In the first month, my monthly premium dropped 40%! I was hooked.

But now it was really showtime. The model of insurance as a product is that you pay a company to safeguard you against certain risks: unexpected health crises, natural disasters, or car accidents. Often, customers don't really interact with their provider beyond their payments until a need occurs. But Metromile is different from traditional providers in that it has different touchpoints. For example, it has a well-designed mobile app that uses their telematics technology to give drivers information about their car's health, location, and driving patterns. And as a curious UX-er, I toyed with it from time to time. But generally, when customers in the United States need to interact with their insurers, they navigate a complex bureaucratic system that is not user-friendly. So how would Metromile treat me and my smashed-up car? Perhaps the savings were great, but could the entire product turn into a major hassle?

Typically, the first thing a US driver does after an accident is call the customer-support line of their insurance company. A representative takes down details about the incident and the other driver to open a claim for you on your account. This begins the process through which the insurance investigates and then pays for or reimburses you for any costs.

But Metromile has this process available on their app, and I was game to try it. (See Figure 1-1.) So while I stood next to the other driver, I went through an intuitive flow that dropped me into their claims funnel. It even used geolocation for finding the exact location of the accident so I didn't need to take note of street signs. In addition, like anybody after an accident, I was rattled. But the app's checklist took care of everything. It made sure I collected the other driver's name and address, took a photo of her license and car insurance, gathered any witness details, and took photos of my car and hers to document the damage. The guidance kept me calm and attentive to the matter at hand. It took less than 10 minutes.

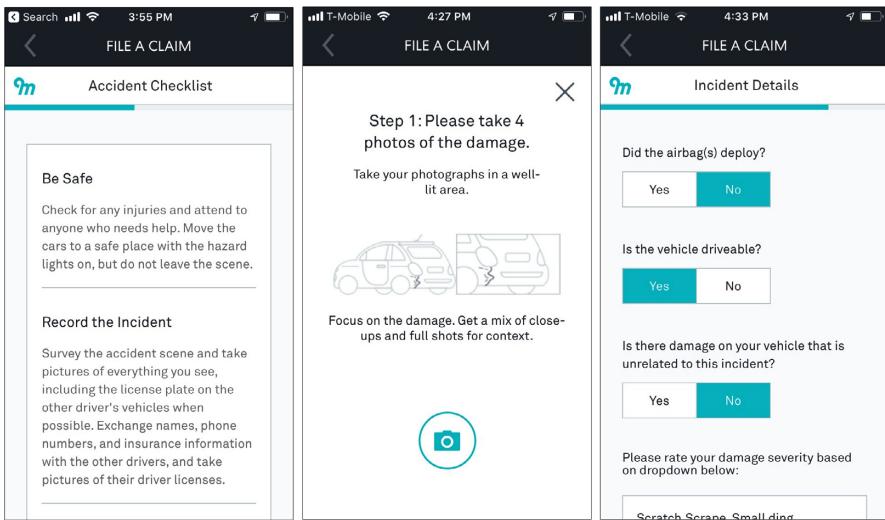


FIGURE 1-1

Various screens within Metromile's claims flow

The other driver and I hugged goodbye, then parted ways. By the time I got home, there was an email from Metromile with a list of local repair shops. It also prompted me to choose a rental car provider so that they could meet me at the exact time I chose to drop my car off at the repair shop. While my car was in the shop, I drove around Los Angeles in a cool black jeep while Metromile handled negotiations with the other driver's insurer to help me avoid paying my own \$500 deductible. Basically, somehow, this startup managed to take what is typically a very fraught customer experience for many Americans and turn it into something frictionless. And their success wasn't just about user experience (UX) design.* It was actually more about their UX strategy.

* Andrew Kucheriyav, "How Customer-Centric Design Is Improving the Insurance Industry," *Forbes*, April 17, 2018, <https://oreil.ly/8-Ceg>.

The Evolution of the Term UX Strategy

I first came across the term *UX strategy* in print in 2008 in *Mental Models* by Indi Young.* At the time of the book's writing, Young was attempting to help UX design ascend to a more strategic level. As such, she offered her readers a mini-manifesto along with an equation for experience strategy written by Jesse James Garrett, which you can see in Figure 1-2.

Experience Strategy

The strategy that you develop for your product ought not evolve in isolation. Even though the value of user experience is clear, your over-arching reasons for providing something should be considered with equal weight.

Jesse James Garrett describes the phrase Experience Strategy thusly:

$$\text{Experience Strategy} = \text{Business Strategy} + \text{UX Strategy}$$

A mental model helps you visualize how your business strategy looks compared to the existing user experience. Thus, it is a diagram that can support your experience strategy.

FIGURE 1-2

Sidebar from the book *Mental Models* © 2008 Rosenfeld Media, LLC

Experience strategy was a new discipline that Young and Garrett were shaping as some of the founders of Adaptive Path in San Francisco. They combined methods from different disciplines, including business strategy and user research. I really wanted to understand what UX strategy meant and why adding business strategy to it turned it into experience strategy.

Over the course of my career working with agencies, startups, and enterprises, I've seen and heard many definitions of the term *UX strategy*. The problem with evolving technology terminology is that it causes confusion for clients, stakeholders, recruiters, HR departments, universities, and, most of all, new designers. I saw the same kinds of

* Indi Young, *Mental Models* (New York: Rosenfeld Media, 2008).

semantic debates in the early 2000s with the conflicting interpretations of *user experience design* and *interaction design* and in the early 90s with *new media* and *multimedia*.

WHAT UX STRATEGY WAS IN THE FIRST EDITION OF THIS BOOK

In the first edition of this book released in 2015, I said that UX strategy is the process that should be started first before the design or development of a digital product begins. It's the vision of a solution that needs to be validated with real potential customers to prove that it's desired in the marketplace. Although UX design encompasses numerous details such as visual design, content messaging, and how easy it is for a user to accomplish a task, UX strategy is the "big picture." It is the high-level plan to achieve one or more business goals under conditions of uncertainty.

The first edition also included an interview with another Adaptive Path founder, Peter Merholz. In it he said:

In an ideal world you wouldn't need UX strategy, because it would just be a component of your product or business strategy. We're moving into this ideal world, I think. We're seeing more and more often that UX is considered a part of a broader strategy. But, I think the separate and distinct concept of UX strategy was necessary for us—at least so we could focus on it—to shine a light on it and develop a toolkit to then wrap up in product strategy.*

Fast-forward six years, and Merholz was mostly right. The UX strategy practice I described in my first edition is now synonymous with product strategy. Meanwhile, the term *UX strategy* is most frequently used to mean strategically executing UX at a particular organization or business unit: how the UX department should be run, how to assess and grow your team's capabilities, how to broaden your UX team's reach and influence, and how to prioritize UX projects that can have the most return on investment (ROI).† It is more process focused.

* Jaime Levy, *UX Strategy*, 1st ed. (Sebastopol, CA: O'Reilly, 2015).

† Jared Spool, "A UX Strategy Workshop Led by Jared Spool," Creating a UX Strategy Playbook, <https://playbook.uie.com>.

SO THEN WHAT IS PRODUCT STRATEGY?

Traditional product strategy describes who your customers are, how your product fits into the current market, and how it will achieve business goals. It starts with the product vision and ends with a roadmap on how to tactically get there. In an enterprise environment, a clear product strategy is crucial for aligning with stakeholders. It typically is led by a director of product, a product owner, or product manager. The strategy process covers bringing a product to market and taking it through growth and maturity and eventually through decline.

But the discipline of product strategy has also evolved. It now places a stronger emphasis on satisfying the customer's needs through user research and design practices. And the job titles are evolving along with it. UX designers now call themselves product designers. And I've watched many former UX strategists rebrand themselves as product strategists. Perhaps I will too.

WHY STRATEGY FOR DIGITAL PRODUCTS IS CRUCIAL

The purpose of any strategy is to create a game plan that looks at your current position and then helps you get to where you actually want to be. Your strategy should play to your strengths and be mindful of your weaknesses. It should rely on empirical, lightweight tactics that quickly move you and your team—because let's face it, you're probably not doing this alone—toward your desired destination. Strategy goes beyond the abstract nature of design and into the land of critical thinking. *Critical thinking* is disciplined thinking that is clear, rational, open-minded, and informed by evidence.* A valid strategy is the difference between success and failure. In the digital product world, chaos—time delays, increased costs, and bad user experiences—gets exacerbated when there is no shared product vision among team members.

A shared product vision means that your team and stakeholders have the same mental model for your future product. A mental model represents someone's thought process about how a thing works in the real world. For instance, when I was 10 years old, I believed the way my mom got cash was by going to a bank, signing a slip of paper, and then receiving the funds from the teller. When I was 20, I believed I needed

* “Critical Thinking,” Wikipedia, <https://oreil.ly/J34r8>.

to take a bank card and key code to access an ATM to get cash. But if you were to ask my 16-year-old son how to get cash, he would tell you to go to the supermarket and ask for cash back when you pay for your groceries. The 2021 mental model for getting cash is very different from the 1976 mental model. That's because new technologies and new business processes come together to offer a more efficient way for people to accomplish tasks.

Stale mental models
are overturned.
Life is disrupted for
the better!

This is why I prefer to work with open-minded clients, whether they be startup founders or enterprise executives. Open-mindedness means that they are receptive to challenges and experimentation, and they understand that there is a chance their initial business idea might not be sustainable. If I see that a potential client is fixated on an idea and not open to the possibility of deviation, then they don't need my help. My favorite clients are the ones who truly want to change a mental model and are open to experimenting their way to a successful outcome.

Even though envisioning innovative products is fun, it's hard to get people to change their behavior. Customers have to see the value in the new way before they'll consider abandoning the old. Devising new products to solve serious dilemmas is not for the faint of heart. You must be passionate and at least a little crazy to run headlong into all the obstacles that inevitably will get in the way.

Yet it's the passion to solve a problem, change the world, and make it an easier place to live in that makes for game-changing products. And this passion is not limited to entrepreneurs who quit their day jobs. It also emboldens people who have titles like product owner, UX/product designer, or developer. These are people who are also passionate about using technology to conceive products that customers want. When you bring these types of people together, you have the necessary means to potentially make magic happen and destroy outdated mental models.

My goal in this book is to demystify the practice of UX strategy so that you can do just that. You'll be able to immediately apply product strategy techniques to your projects in a variety of settings to keep you and your team from getting overwhelmed no matter what limitations you face. The techniques discussed in this book can be used for inventing a new product or revamping an existing product. An existing product is still susceptible to technological advances, new competitors, and shifts in consumer expectations that could unexpectedly shorten its life cycle.

As a product matures with a growing user base, it's crucial to revisit your strategy. Thus, conducting validation experiments to discover new customer segments, marketing channels, and revenue streams is a job that is never done.

I'll show you how it can happen through a variety of case studies. I'll even reach back into my family ancestry because I know I was inspired to be entrepreneurial from watching and learning from my family. You'll see how the journey *is* the reward no matter if you're a teacher, student, or maker. You'll also see that no matter the project or the circumstances, producing inventive products is like being on a roller coaster, and the only way to keep the product on the rails is to use an evidence-based approach for reducing uncertainties.

You can face uncertainty in one of two ways. You can take the safe route and avoid making any detours. Or you can choose a road less traveled and see where it goes. The first option might be more direct and is certainly easier. But for me it's far more alluring to blaze a new trail.

The Four Tenets of UX Strategy

*In war, let your great object be victory, not lengthy campaigns.**

—SUN TZU, *ART OF WAR*

A STELLAR UX STRATEGY IS A MEANS TO DISRUPT THE MARKETPLACE through mental model innovation. Because what's the point in spending time and energy crafting a product that isn't unique? Or, at the very least, is a much better alternative to current solutions found in the marketplace?

To realize that advantage, we need a framework in which to connect all the dots that will build a cohesive UX strategy. In this chapter, I'm going to break down the most important tenets that you need to understand in order to successfully implement the tools and techniques in this book. Think of it as a primer to get you and your team thinking like strategists.

How I Discovered My UX Strategy Framework

In the digital world, strategy usually begins in the *discovery phase*. This is when teams dig deep into research to reveal key information about the product they want to build. I've always liked to think of the discovery phase as similar to the pretrial discovery process used by attorneys in the United States. To avoid a "trial by ambush," lawyers can request to see the evidence of the opposing counsel in order to prepare sufficient counterevidence. In this way, attorneys try to avoid surprises, and you as a product maker should also want to strategically do just that.

* Sun Tzu, *Art of War*, trans. Lionel Giles (London: Luzac and Co., 1910).

My first chance to practice UX strategy occurred in 2007. At the time, I was the UX lead at a digital agency called Schematic (now Possible) working on the website redesign of Oprah.com. Along with the other team leads, I flew into Chicago to kick off our discovery phase.

Before that moment, my 15 years of professional experience focused on interface design and integrating new technologies such as Flash into interfaces to create “cutting-edge” products. Often, I was handed a massive requirements document that listed hundreds of “essential” features. Or, I was given a flimsy project brief with pretty comps that stated what the final product should look like and accomplish. Based on these documents, I made a site or application map that catered to a specific set of use cases that enabled those interactions. Because it was typically too late at that point to challenge the rationale behind the product vision, I could only hope that my creation delivered value for both the end users and the stakeholders. But I was just supposed to design on time and on budget.

But in 2007, I watched our UX director, Mark Sloan, get a dozen contentious stakeholders—no, Oprah wasn’t there—on the same page. Mark used consensus-building techniques such as affinity maps, dot voting, and forced ranking* to help us understand all the different pieces of content and critical functionality that would make up the system we had to revamp. This discovery phase helped us—the stakeholders and product team—examine our goals to make a better platform for the millions of devoted Oprah fans of the world.

After all the workshops, we were given one week to knock out a discovery brief, including concept-map analyses, a recommended feature list, and user personas. We did request additional time and access to interview Oprah’s website users so we could learn from them firsthand. Instead we were told to just create the personas based on the demographic and psychographic marketing data provided. Since the process was entirely new to me, I naively fabricated three totally bogus personas. (To see what I should’ve done, check out Chapter 3.)

* Dave Gray, Sunni Brown, and James Macanufo, *Gamestorming: A Playbook for Innovators, Rulebreakers, and Changemakers* (Sebastopol, CA: O’Reilly, 2010).

One week later, the product team and I presented the discovery brief defining the product vision. Because the stakeholders were eager to get started, they immediately approved it. Our digital team was off and running on an implementation phase that lasted over six months and contained many emotionally fueled hand-offs. There were hundreds of pages of wireframes and functional specifications traded between stakeholders, designers, and developers.

But this discovery brief was never referenced again. The personas and proposed solution were never validated by existing customers. The stakeholders went back to fighting for whatever prime real estate on the screen they could grab for their particular business units. But there was something good that came out of that discovery phase for me: I was a UX designer who finally got a taste of what a UX strategy could potentially be. I was ruined. I needed to be working on projects where user research and business strategy were given more weight.

I could not imagine just being a wireframe monkey anymore!

The following year I started work for another digital agency (Huge) where I was able to focus my energy more directly on the discovery phase. I had a seat at the table to help shape the UX strategy and decide how best to validate that it was on target. I no longer had to feel fraudulent for spending so many waking hours building products for which I lacked a deep understanding of the customer segment and the business model.

Today, I run my own practice that specializes in strategy for digital solutions, and since my first discovery phase, I've learned a lot about how to make it an iterative, lightweight, and empirical process of intense collaboration among stakeholders, designers, developers, and so on. Because when everyone shares a product vision, you and your team have a greater chance at changing the rules of the game for your product, company, and future customers.

However, I do want to acknowledge that this methodology is my version of UX strategy and might be different from other strategists' methodologies. That's what happens when a new discipline or methodology arises; people will find their own approach, but even within those differences, we all have the same ultimate goal: to deliver a successful product that customers want.

So, with all that said, cue the drumroll to introduce my UX strategy framework, as presented in Figure 2-1.



FIGURE 2-1

The four tenets of UX strategy

My formula is this: UX Strategy = Business Strategy + Value Innovation + Validated User Research + Frictionless UX.

These are the four tenets that make up my framework. You need to understand how each tenet interacts and affects one another. It's not enough to research your marketplace if you can't identify an innovative value proposition. It's not enough to design a seamless UX if you can't validate that users want your product. It's like playing a game of chess. You want to be thinking several moves ahead and be aware of how all the pieces can be used to support your game-winning strategy. Using the techniques and tools in the subsequent chapters will help you in your quest to beat your opponents.

Lessons Learned

- The discovery phase is where UX strategy begins. UX strategy is based on four tenets: business strategy, value innovation, validated user research, and frictionless UX.
 - The output of the discovery phase should be based on empirical evidence, such as getting direct input from target users before going straight from an idea to wireframes and development.
 - How a team executes a discovery phase can be the determining factor for whether or not a product will ultimately deliver real value for the customers and the business.
-

Tenet 1: Business Strategy

Business strategy is the top-line vision of the company. It ensures the long-term growth and sustainability of the organization. It governs the stakeholders' decision-making process about which initiatives may lead to greater profitability and success. The business strategy is the basis for the core competencies and offerings, which are the products. In this book, I will use the term *products* to refer to digital products, services, platforms, and hybrid customer experiences with both digital and non-digital touchpoints, such as with Metromile.

The business strategy identifies the company's guiding principles for how it will position itself and still achieve its objectives while beating the competition. For this to happen, the business *must* continually identify and utilize a competitive advantage. A competitive advantage is essential to the company's long-term existence.

COST LEADERSHIP VERSUS DIFFERENTIATION

In his classic book *Competitive Advantage*,* Michael Porter lays out the two most common ways to achieve a competitive advantage: cost leadership and differentiation.

* Michael Porter, *Competitive Advantage* (New York: Free Press, 1985).

The advantage behind cost leadership comes from offering the lowest price for products in a particular industry. Whether it is the cheapest car, television, or hamburger, this was the traditional way that companies achieved dominance in the marketplace. In the past, we saw how it worked through pre-internet companies like Walmart and McDonald's. However, we also see it today with companies like Amazon and Uber. One of the main reasons they remain dominant in the marketplace is that they offer consumers convenient services at low prices. That's why they're chosen over all the rest. Of course, these practices come at a cost—Amazon and Uber are often rightly accused of employee/contract worker exploitation and malpractice*—but the rampant growth of these companies continues.

But what happens when prices hit rock bottom? Then, the battle needs to be about what makes the product better. This brings us to Porter's second type of competitive advantage: differentiation. Because we are inventors planning to build breakthrough solutions, this is where our actual power lies. With differentiation, the advantage is based on a new or unique product or a unique aspect of the product for which customers will pay a premium because of its perceived value.

As consumers, we choose one product over another based on the things we personally value, ranging from the product's usefulness to how much pleasure we derive from it. That perceived value is very important, and it's what helped transform a little cafe and cup o' joe into the crazy success story of Seattle-based Starbucks at the turn of the century. It's also the reason why people continue to pay up to \$5 for a beverage. There's an *experience* wrapped into the product. It used to start the moment a customer stepped into the store and smelled freshly roasted coffee. But now the journey can span from the mobile app to when the customer picks it up at their local Starbucks to when that person tosses their cup and sleeve into the trash.

* Tyler Sonnemaker, "Amazon Employees Say They're Scared to Go to Work, but They're Not Alone—Here Are 9 Big Companies Facing Worker Criticism Over Their Coronavirus Safety Response," *Business Insider*, May 1, 2020, <https://oreil.ly/vfuo9>.

HOW UX DIFFERENTIATION RELATES TO BUSINESS STRATEGY

Differentiated user experiences have completely revolutionized the way we communicate with the world. Consider what the world was like before microblogging. When it was released in 2006, Twitter confounded users with its initial 140-character limit. But the limit turned out to be a valuable perk, especially with respect to news updates. Today, many users don't check traditional news outlets for instant updates; they check Twitter. When Hurricane Sandy pounded the East Coast in 2012, the power went out, but more than 20 million tweets occurred among users, residents in the storm, and media and government outlets.* I know I spent some time on Twitter, tweeting to friends in New York about the hurricane updates I saw on TV from my home on the West Coast.

Another tool that has distinguished itself from the competition with a UX differentiation is the map app Waze. It combines crowdsourced data with GPS navigation, thereby allowing users to find the quickest route to their destination at that moment. By merely driving around with Waze open, users passively contribute traffic and other road data to the network. Users can also take a more active role by sharing road reports on accidents, police traps, or any other hazards along the way, helping others in the area with a heads-up about what surprises might be ahead of them. In June 2013, Waze (an Israeli startup) was acquired by Google for \$1.1 billion. Now, Waze still offers its distinct UX to its users, but its data is also channeled into Google Maps.[†] Clearly, Google recognized Waze's competitive advantage and chose to adopt Waze rather than compete against it.

Products such as Facebook didn't kick the collective asses of competitors like MySpace or Friendster because they were the cheaper alternative. Facebook won the field because it offered a differentiated UX that was perceived by users as more valuable and *everyone* adopted it. In

* Emily Guskin, "Hurricane Sandy and Twitter," Pew Research Center, November 6, 2012, <https://oreil.ly/IDOtj>.

† "New Features Ahead: Google Maps and Waze Apps Better Than Ever," *Google Maps Blog*, August 20, 2013, <https://oreil.ly/9-3sx>.

2007, Facebook leveraged their mass adoption into an innovative business model: monetizing user data to sell micro-targeted advertising. As Douglas Rushkoff wrote for CNN back in 2011:^{*}

“On Facebook we’re not the customers.
We are the product.”

What Rushkoff meant was that users should be aware that products that seem free do come with a cost. And the cost is our privacy, among other things. Since 2007, this business model has only become more prevalent. Numerous corporations today monetize the data exhaust of users, though both governments and mainstream media worldwide are finally taking action against these types of questionable practices.

User Versus Customer

The traditional definition of *users* is people who use something, and *customers* are people who pay for something. But this bifurcation becomes convoluted when trying to apply it to modern business models.

For some B2C (business-to-consumer) solutions, the users of the product or service *are* the customers. An example of this is Dropbox. Users who subscribe to one of Dropbox’s paid plans are paying customers, while those using the free version are nonpaying customers. Both paying and nonpaying customers need to find value in the cloud storage platform for it to be successful.

But this premise breaks down when you introduce third parties like advertisers. As mentioned previously, Facebook sells its users to its customers (advertisers). In this case the users and the customers have two distinct experiences with the product. Like with traditional media, if you don’t have users or an “audience,” then you can’t sell advertising. So the user experience is still mission critical for Facebook, but it is optimized to sell advertising.

For B2B (business-to-business) solutions, the users of the product or service are not the customers. The customer may be the CTO who decides what software products to purchase for the company, while the user is the employee who will be using the products. This is why in certain chapters, I will specifically call out how my techniques need to be modified.

* Douglas Rushkoff, “Does Facebook Really Care About You?” CNN, September 23, 2011, <https://oreil.ly/DSJ-k>.

THE BUSINESS MODEL CANVAS

A business model describes the rationale of how an organization creates, delivers, and captures value. I'm going to dissect this common definition in the context of digital products. By *create*, we are talking about the thing that our entire product team designs and implements—i.e., mobile app production. By *deliver*, we are talking about the way that thing is put in front of our customers—i.e., smartphones, the app store, and the internet. By *capture*, we are talking about the way that thing ultimately generates something deemed worthy—i.e., tons of users to monetize. The logic that explains the workings of all of these elements is our business model.

The process of business model construction is foundational to a business strategy. As Steve Blank writes, a business model describes the “flow between key components of the company.”* This quote comes from Blank’s customer development manifesto in which he challenges product founders to stop writing static business plans. Instead, he encourages them to adopt a flexible one-page business model that requires all of the key components to be validated using empirical, customer-facing discovery methods. To get a sense of these key components, let’s take a look at a tool called the Business Model Canvas and apply it to the company Metromile from Chapter 1.

In their seminal book *Business Model Generation*,† authors Alexander Osterwalder and Yves Pigneur deconstruct each of the nine essential building blocks of a business model so that visionaries can systematically think through the logic of how the company will eventually make money. Blank also refers to this tool in his own work on business-model creation. What’s relevant to us in this book is how many of these components will align with the UX strategy for a digital product.

They are as follows (see Figure 2-2) and listed below the diagram in the logical order in which the components should be tackled:

* Steve Blank and Bob Dorf, *The Startup Owner's Manual* (Hoboken, NJ: Wiley, 2012).

† Alexander Osterwalder and Yves Pigneur, *Business Model Generation* (Hoboken, NJ: Wiley, 2010).

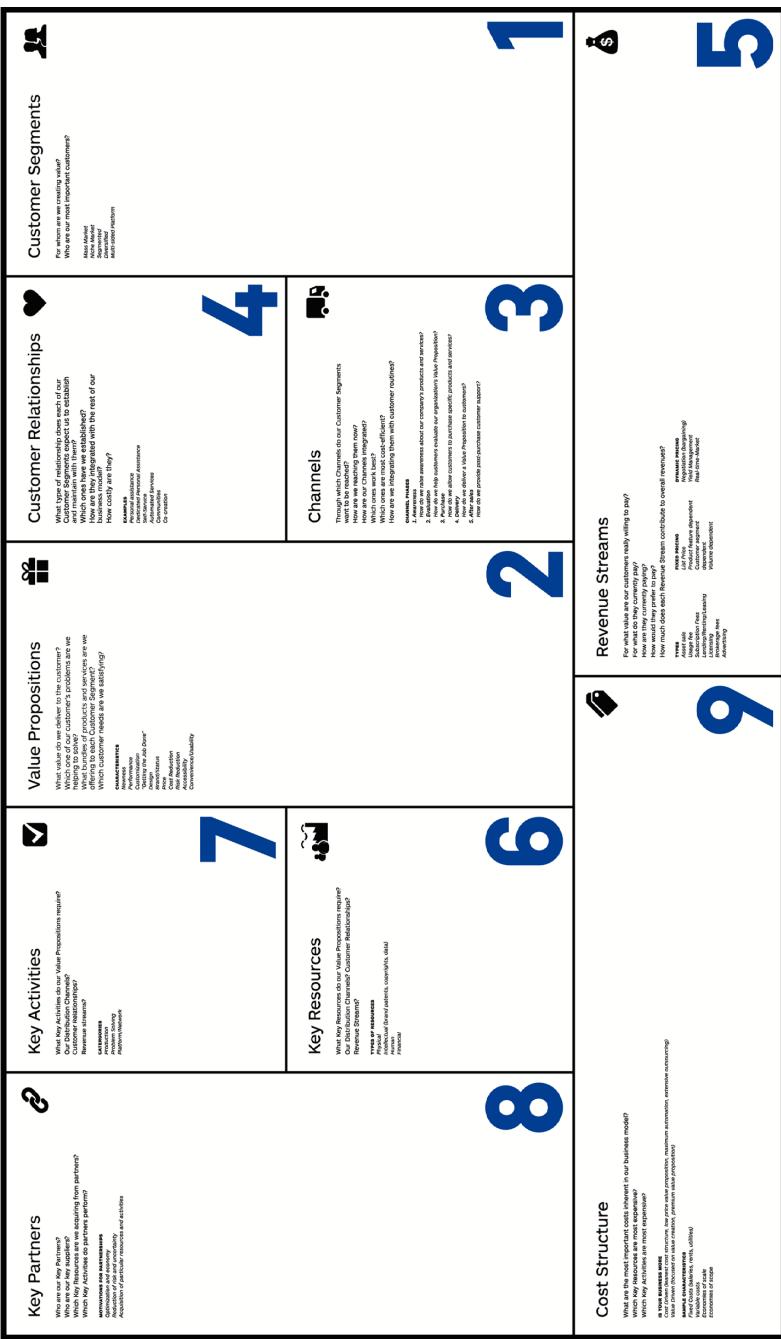


FIGURE 2-2

Business Model Canvas: Nine business model building blocks, Osterwalder, Pigneur, et al. 2008

1. Customer segments

Who are the primary customers? There may be more than one customer segment, each requiring a distinct offering. What is the simplest way to describe each segment?

For Metromile: The primary customer segment is low-mileage drivers based in states in the USA where Metromile insurance is offered.

2. Value propositions

What is the core value of the service or product that the business promises to deliver to the customer?

For Metromile: The biggest thing they are promising is savings on insurance through their pay-per-mile pricing model. They also promise a frictionless claim-processing system and features like trip and fuel summaries, street-sweeping alerts in certain cities, and an engine-code decoder. Additionally, they offer insurance to short-term car renters who need fractional insurance policies.*

3. Channels

How will we reach our customer segment? What are all the customer touchpoints when they come into contact with the product?

For Metromile: They reach their potential and acquired customers through their online website, mobile app, social networks, and their 24/7 claims team and customer support available by phone, email, and a variety of digital channels like SMS, Facebook Messenger, etc.

4. Customer relationships

This describes the type of relationship that the company is going to have with the customer. It can range from a personal concierge service to impersonal self service where the customer never actually comes into contact with a human being.

For Metromile: They offer personal service or automated assistance. Like traditional providers, they offer a white-glove phone-based sales team for those who prefer to speak to someone when signing up. But I personally onboarded myself through their website. I never spoke to a human until after I had filed my car accident claim.

* “Metromile and Turo Are Teaming Up to Redefine Auto Insurance,” *Metromile Blog*, May 20, 2019, https://oreil.ly/TfWU_.

5. Revenue streams

A revenue stream is how the company makes money. There are numerous ways for a company to make revenue, including advertising, subscriptions, direct sales, premium features, and transaction fees.

For Metromile: They charge customers a monthly base plus a pay-per-mile usage fee.

6. Key resources

What strategic assets must the business have to make the product work? The assets can be human, financial, intellectual, or physical. It can be something that needs to be developed.

For Metromile: Their first key resource that needed developing was a team of humans to build their Metromile Pulse device for accurately capturing and synthesizing their customers' driving data. Then they needed to build a platform for more efficiently processing claims through artificial intelligence and machine learning. They also needed the people who developed and designed the platform as well as the claims team members to make sure their customers were getting handled properly.

7. Key activities

What are the key activities the business must do in order for their business model to work? This includes activities that enable them to acquire customers and ensure that they experience the value proposition. The behind-the-scenes activities are also identified to ensure that the company functions to deliver those promises.

For Metromile: They need strong marketing and sales, product, design, engineering, efficient claims processing, and so on.

8. Key partners

What partnerships and suppliers does the business need in order to deliver the value proposition?

For Metromile: They rely on partners for different aspects of their value proposition, such as auto repair shops, car rental providers, roadside assistance, glass repair, and short-term car rentals.

9. Cost structure

What are the major costs that will be incurred to make the business model work? Are there fixed costs that won't go away? Are we trying to cut costs by throwing out the frills?

For Metromile: Their biggest cost is for the repair of vehicles from customer claims. Fixed costs include employee salaries, rent, computers, internet hosting services, and insurance.

By using the canvas, product makers can systematically collect all their hypotheses about their product in one place. They then revise it as they move through the discovery phase, and it's something you'll see as we go through all the techniques in this book. For this tenet, however, it is another place in which we can see how business strategy and UX strategy intersect. So many of the concerns of the Business Model Canvas—customer segments, channels, value propositions, revenue streams, and customer relationships—are elements that are essential to creating a product's online and offline experience, which as you've learned, is key to our competitive advantage.

This leads us to how the Business Model Canvas also calls out the importance of collaboration among stakeholders and team members in the discovery phase. Categories such as key resources, cost structure, and partnerships aren't something that a product manager or designer should think up in a vacuum. Rather, these categories are where the stakeholders can offer a wealth of insights.

THE LEAN CANVAS

Another great tool for testing business model hypotheses is called the *Lean Canvas*. It was created by Ash Maurya in 2010—about two years after the Business Model Canvas was put forth. Maurya said, “My main objective with Lean Canvas was making it as actionable as possible while staying entrepreneur-focused.”* It’s also more self-explanatory, and it focuses on the problem that needs to be solved. Let’s take a look at the Lean Canvas (see Figure 2-3) for Metromile to compare it to the Business Model Canvas. The numbers represent the logical order to attack each component.

* Ash Maurya, “Why Lean Canvas vs Business Model Canvas?” *Leanstack*, <https://oreil.ly/zJYVu>.

PROBLEM	SOLUTION	UNIQUE VALUE PROPOSITION	UNFAIR ADVANTAGE	CUSTOMER SEGMENTS
List your top 1-3 problems.	Outline a possible solution for each problem.	Single clear compelling message that states why you are different and worth paying attention.	Something that cannot easily be bought or copied.	List your target customers and users.
1	2	3	4	5
EXISTING ALTERNATIVES	KEY METRICS	HIGH-LEVEL CONCEPT	CHANNELS	EARLY ADOPTERS
List how these problems are solved today.	List the key numbers that tell you how your business is doing.	List your X for Y analogy e.g. YouTube = Flickr for videos.	List your path to customers (inbound or outbound).	List the characteristics of your ideal customers.
6	7	8	9	1
COST STRUCTURE	REVENUE STREAMS			
List your fixed and variable costs.	List your sources of revenue.			

FIGURE 2-3

Lean Canvas: Adapted from the Business Model Canvas, Ash Maurya, 2010

The Lean Canvas replaces four components (key activities, key resources, key partners, and customer relationships) from the Business Model Canvas with the following:

2. Problem

These are the top three problems that the customer segment faces.

For Metromile, there were three problems to solve:

- My car insurance is too expensive for me considering how little I drive.
- Whenever I have to file a claim, it's a terrible experience.
- My car insurance provider does nothing but put me on hold forever when I call.

4. Solution

These are the top three potential solutions to the problems.

For Metromile, there were three solutions to strive for:

- Pay-per-mile pricing
- Frictionless claims processing system
- High-touch customer service, frictionless user experience (desktop + native app) with helpful features that go beyond just viewing the policy

8. Key metrics

Key metrics are the activities that drive retention and revenue.

For Metromile, they are:

- New customer sign-ups
- Overall satisfaction with the claims experience
- High NPS and CSAT scores
- App engagement

9. *Unfair advantage*

An unfair advantage is something that can't be easily copied or bought.

For Metromile, they have these unfair advantages:

- ADA Claims Automation System
- Market leader in pay-per-mile
- Telematics data for all of its policyholders as opposed to just a segment of them

There are other canvases out there as well, but these two are the most well-known. What matters most is that you have malleable documents that track your business model assumptions and learnings so they can be shared and discussed with other people. These tools serve as starting points for relevant conversations about the business model and product strategy. They are not foolproof executable plans for your business strategy.

Also, as the product scales and the market evolves, the business strategy must be nimble. For a new product, a strategy probably revolves around just getting enough product/market fit* to raise financing or grabbing enough market share so that they can leverage their user base into a competitive advantage. But, for a more mature company, the strategy is about building on the company's core value proposition while trying to evolve the company's infrastructure and internal processes to support that growth, often called *digital transformation*. Netflix is a great example of a company that has gone through more than one digital transformation. Netflix started out delivering DVDs in the mail, but then it became a major video streaming service. Now Netflix's original content has become an even bigger part of its business. Imagine how their infrastructure, systems, and workforce has had to change to do all of this.

It is in this way that what might have been the business model or competitive advantage in the early life cycle of the product might not be the same in later phases. Nevertheless, in chasing this moving target,

* “Product/Market Fit,” Wikipedia, <https://oreil.ly/MUHoc>.

companies must continue to experiment with varied offerings so that they can scale, remain competitive, and continue to offer value to users in an ever-changing marketplace.

Tenet 2: Value Innovation

As product inventors, we must be hyperaware of all the changing market dynamics. We must understand how and why people use their devices and what defines a successful and a failed UX. The reason is that a user's first contact with the interface generally determines success or failure. It provides the user with their first impression of your value innovation, and it is value innovation that creates new mental models for people.

Before we delve into value innovation, let's discuss the word *value*. The word is used everywhere. It's found in almost all traditional and contemporary business books since the 1970s. In *Management: Tasks, Responsibilities, Practices*,^{*} Peter Drucker discusses how customer values shift over time. He gives an example of how a teenage girl will buy a shoe for its fashion, but when she becomes a working mother, she will probably buy a shoe for its comfort and price. In 1985, Michael Porter defined the term *value chain* as the chain of activities that a firm operating in a specific industry performs in order to deliver a valuable product that serves the business model and its customers.[†] Figure 2-4 illustrates a traditional value chain for a physical product manufacturer.



FIGURE 2-4

The traditional value chain

That is the business process that Toyota uses to make vehicles and that Apple uses to make computers and devices. During each of the activities in this value chain, opportunities exist for companies to identify and outperform their competitors. But, the left-to-right linearity of this chain was originally intended for physical products. By contrast, digital

* Peter Drucker, *Management: Tasks, Responsibilities, Practices* (New York: Harper Business, 1973).

† Michael Porter, *Competitive Advantage* (New York: Free Press, 1985).

products—Dropbox, Pinterest, Slack—allow for a value chain to potentially flow in nonlinear order. They have faster repeat loops, and in some cases, the activities happen in parallel. In two-sided markets (see Chapter 3) revenue and cost move both to the left and right, as there are users on each side of the platform. The product accrues costs in serving both groups while also collecting earnings from each. Or companies start at the market or sell link in the value chain by using a landing page experiment to test the waters before they design or manufacture the product. (See Chapter 9.)

This is part of why traditional business strategy principles do not perfectly map to the digital world. When producing digital or hybrid (i.e., Nest thermostat) products, we must continuously research, redesign, and remarket them to keep up with the rapidly evolving online marketplace, customer values, and value chains that are required to keep our products in production.

In 1988, Michael Lanning first coined the term *value proposition* to explain how a firm proposes to deliver a valuable customer experience.* However, for a business to generate wealth, it needs to offer a superior product to that of its competitors but at a manufacturing cost below what customers pay for it. This brings us to another challenge of designing digital products: the software, apps, and other things that users find on the internet and use every day. As mentioned, a product needs to be valuable to users to entice them to use it continually. It also needs to be valuable to the business so that the business can sustain itself. If a business model is supposed to help a company achieve sustainability, how can you do that when the online marketplace is overrun with free products?

Value innovation is the key. In the book *Blue Ocean Strategy*,[†] authors W. Chan Kim and Renée Mauborgne describe value innovation as “the simultaneous pursuit of differentiation and low cost, creating a leap in value for both buyers and the company.” What this means is that value

* Michael J. Lanning and Edward G. Michaels, “A Business Is a Value Delivery System,” (Chicago: McKinsey and Co., 1988), <https://oreil.ly/3n4nS>.

† W. Chan Kim and Renée Mauborgne, *Blue Ocean Strategy* (Brighton, MA: Harvard Business School Press, 2005).

innovation occurs when companies align newness with utility and a lower cost structure (see Figure 2-5) to the benefit of the customers and stakeholders.

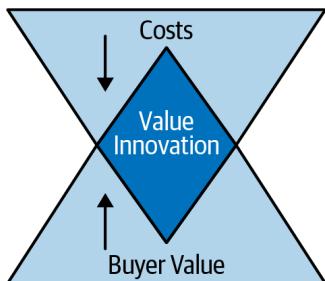


FIGURE 2-5

Value innovation = the simultaneous pursuit of differentiation and low cost

Innovation means doing something that is new, original, and important enough to shake up a market. In the book, the authors discuss their studies of 150 strategic moves spanning more than 100 years and 30 industries. They explain how the companies behind Cirque du Soleil, Viagra, and the iPod won because of how they entered *blue-ocean* markets instead of *red-ocean* markets. The sea of other competitors with similar products is known as a *red ocean*. When an ocean is full of competitors circling around the same customer like sharks, the waters get bloody; survival in the marketplace is cutthroat. In contrast, a *blue ocean* is uncontested territory. It is free for the taking. You don't just beat the competition, you make them completely irrelevant.

In the corporate world, the impulse to compete by destroying your rivals through a competitive advantage is rooted in military strategy. In war, the fight typically plays out over a specific terrain. The battle gets bloody when one side wants what the other side has—whether it be oil, land, shelf space, or eyeballs. In a blue ocean, the opportunity is not constrained by traditional boundaries or business models. It's about breaking a few rules that aren't quite rules yet or even inventing your own game that creates an uncontested new marketplace and space for users to roam. This is also known as *category creation*.

When we transpose *Blue Ocean Strategy* to the world of digital products, we must admit that there are bigger opportunities in unknown market spaces. A perfect example of a 21st century company that took advantage of a blue-ocean market is Airbnb. Its core business is serving as a “community marketplace” for people to list, discover, and book sublets of practically anything from a tree house in Los Angeles to a

castle in France. It's given homeowners a safer and easier way to sublet rooms or their entire homes when they are looking for additional revenue. It's given travelers a safer and easier way to sublet a place to stay that is less touristy and more affordable. However, it's also had unintended consequences that the founders did not foresee. It's negatively impacted the daily lives of people who rent apartments in cities across the globe, and it's driven the rental market up so high that only wealthy people can afford to live there. For better and for worse, its value proposition completely *disrupted* the travel industry and housing market.

Disruptive innovation is a term that was coined by Clayton M. Christensen in the mid-1990s.* In his book *The Innovator's Dilemma*, he analyzed the value chain of high-tech companies and drew a distinction between those doing just *sustaining innovation* versus those doing *disruptive* innovation. He described sustaining innovation as any innovation that enables industry leaders to do something better for their existing customers. However, this is where disruptive innovation can blindside established competitors. Christensen said that disruptive innovation usually is "a process by which a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves up market, eventually displacing established competitors."[†]

Disruptors disrupt markets and ultimately create new segments of winners and losers. This is why the word *disruptive* has become quite provocative. If the companies don't self-regulate, the "losers" start complaining until hopefully the government steps in to pass new legislation. This is why Silicon Valley's mantra "Move Fast and Break Things" is ethically flawed and outdated.[‡] (See the Ethics & Compliance Initiative website for tools[§] and Mike Monteiro's *Ruined by Design*[¶] for more.)

* Lawrence M. Fisher, "Clayton M. Christensen, the Thought Leader Interview," *Strategy+Business*, October 1, 2001, <https://oreil.ly/bBpYH>.

† Clayton Christensen, "Disruptive Innovation," *Clayton Christensen*, <https://oreil.ly/wj8Kz>.

‡ Hemant Taneja, "The Era of 'Move Fast and Break Things' Is Over," *Harvard Business Review*, January 22, 2019, <https://oreil.ly/RiK8S>.

§ "Seven Steps to Ethical Decision Making," *Ethics & Compliance Initiative*, https://oreil.ly/qCD_p.

¶ Mike Monteiro, *Ruined by Design: How Designers Destroyed the World, and What We Can Do to Fix It* (Mule Books, 2019).

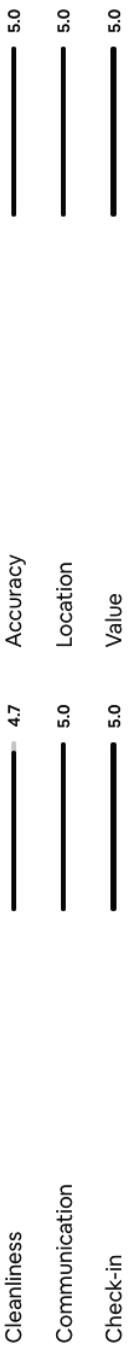
But before its disruptions caused all these issues to bubble to the surface, Airbnb achieved its value innovation by coupling a frictionless UX design with a tantalizing value proposition. And, as I mentioned earlier, true value innovation occurs when the UX and business model intersect. In this case, they intersected in a blue ocean because of how Airbnb broke and reinvented the rules.

For example, before Airbnb, Craigslist was the primary way for people to find and list sublets, but it could be a creepy and uncertain endeavor. Today, we might take verified user profiles and listing reviews (see Figure 2-6) for granted, but back then, the only information about the listing was whatever the lister decided to post. Airbnb, however, required customers to change their mental models. They put the social etiquette of being a good host and good guest at the center of their experience. By facilitating this user experience in which both parties felt good about staying in a stranger's house or hosting a stranger, Airbnb enabled a new subeconomy in which quality and trust became the dominant indicators of value.

Airbnb's business strategy also ensured that there would be parity among users. They catered to a two-sided market in which people who listed their home served the people who booked them and vice versa. They continue to offer value through feature sets that facilitate the business model and UX, like calendar tools, map integration, and a seamless transactional system that had not been offered by competitors like Vrbo, HomeAway, or Craigslist. Ultimately Airbnb offered a more usable platform that minimized the risk of dealing with scary people coupled with fair-market pricing. All of this added up to some serious disruption through value innovation for customers, users, stakeholders, and even the entire travel and real-estate industry. Its competitive advantage works online and offline.

When we consider Metromile's value innovation, it also couples a frictionless UX design with a tantalizing value proposition. In terms of bringing down the cost, they have it nailed for both the customers (drivers) and the business's key activities. As mentioned in Chapter 1, the cost per month of what my monthly premium was with a traditional insurer was decreased by 40%. And the cost for their business to run is also lower because of their automated AI claim system called AVA, which leverages artificial intelligence and machine learning for optimizing claims processing. As explained by Matt Stein, the VP of

★ 5.0 (6 reviews)



Kim
March 2015

This was such a nice retreat. Jaime's studio is clean and quiet with its own private entrance. It was the perfect place to lay my head at night. Located within walking distance to... [read more](#)



Bill
August 2016

Jaime was an excellent host. She was very personable and provided excellent information about amenities in the area. The location is great and is in a very nice quiet neighborho...
[read more](#)



Tim
September 2015

This studio was perfect for me! I was in LA for a research study of 1.5 month at Caltech (I really recommend this place for Caltech students!) There was an easy metro connection t...
[read more](#)



Alexandre
December 2015

J'ai été formidablement, et chaleureusement, accueilli par Jaime dans ce studio, où j'ai passé quelques mois à l'occasion d'un déplacement professionnel. L'appartement est propre, s...
[read more](#)

FIGURE 2-6

Airbnb reviews on the listing page for my studio apartment rental unit

Product at Metromile, “One of the main costs for drivers is what is called the Lost Adjustment Expense (LAE). It represents the amount of money the insurer has to spend on processing and settling a claim from the claim adjusters to the tools they use.” And when you actually need to file a claim, their turnkey system is truly frictionless. All of this added up to serious disruption through value innovation for all customers and stakeholders thanks to the online and offline experience.

There are many other companies and products causing widespread disruption to the status quo through their combined value innovation of cost leadership and differentiation in blue-ocean marketplaces. And through their UX strategies, they are ultimately making people’s lives easier, bringing together customers in new ways and smashing legacy mental models. Companies such as Waze, Spotify, and Eventbrite have completely upended how people drive to their destinations, discover new music, and organize events, respectively. In fact, Eventbrite is how I tested my hypothesis that there were people out there with a thirst for knowledge about UX strategy. Using its interface, I quickly set up a 60-seat lecture at the price of \$40 per person and sold it out. If I didn’t have Eventbrite to experiment with as a promotional platform, I may not have gotten a book deal because it was this evidence that I presented to potential publishers to make my case. Thank you, Eventbrite, for enabling the one value innovation that other platforms like Meetup failed to offer at the time: the ability to host paid ticketed events.

Tenet 3: Validated User Research

Not realizing a product’s value is one of the primary reasons why products will fail. Stakeholders are dreamers in that they assume what customers value instead of verifying it. Much like Kevin Costner in the movie *Field of Dreams*, these entrepreneurs believe that if they build it, they—the users—will come. But the truth is that any new product is a risk.

The same pitfall could have happened to Metromile, but they chose to literally chase their potential customers down. When the company soft-launched in Portland, they went to a place where bicyclists often rode. They stopped cyclists to see if they were interested in this new pay-per-mile insurance. Using iPads, they gave these potential users quotes

and made some of their first sales. It was through this first cohort that they could start tweaking the user experience and business model in real time.

User research is how you verify that you're on the right track with understanding your potential or existing users' goals and needs. There are lots of ways to do it—ethnographic field studies, contextual inquiries, focus groups, diaries and journals, card sorting, eye-tracking, user surveys, and more. But I don't want to talk about any of these traditional methods. Instead, I want to talk about *Lean Startup*.

It's weird to admit, but before 2011, when Eric Ries's *Lean Startup** (which you should have read by now) went critical mass, founders didn't make it their mission to confront customers "early and often." The empirical, fast-moving, and transparent nature of lean startup riffed on ideas from Steve Blank's customer development methodology.[†] Sure, organizations had UX designers around to do "user-centric" design (as opposed to engineer-centric), but lean startup made conducting validated user research a make-or-break aspect of moving forward on a product's strategy.

Lean startup forced user research to become measurable. This leads us to our third tenet—validated user research. *Validation* is the secret sauce of the lean startup business approach. Validation is the process of confirming that a specific customer segment finds value in your solution. Without validation, you are simply assuming that customers will find a use for it. Validated user research goes beyond just observing and establishing empathy for potential users; it forces direct engagement. It helps your team to determine if the vision of your product is a dream or a potential nightmare.

Eric Ries popularized the term *minimum viable product* (MVP), which he describes as "the smallest build that allows the team to collect the maximum amount of validated learnings about customers."[‡] By getting early customer buy-in, you de-risk your product. And if users don't

* Eric Ries, *Lean Startup* (New York: Harper Business, 2011).

† Steve Blank, *The Four Steps to the Epiphany* (Plano, TX: K&S Ranch Press, 2005).

‡ Eric Ries, *The Startup Way* (Manhattan: Currency, 2017).

like what they see, we need to either “pivot” to a different customer segment or pivot to a different problem that our value proposition will be able to address.

Iterations like the MVP require your team to conduct research and gain validation before the product’s implementation phase. It helps your team verify that it is targeting the right customer and not just a general persona. When you’ve validated a specific pain point that needs addressing, you can continue to add features and then test those features using the same research methods. This is known as the *build-measure-learn* feedback loop, which will be discussed later on. Use your research to validate your decisions and ensure that the product vision is aligned with the end user’s needs.

Validated user research is a collaborative process that should involve as many members of the product team as possible. Collaboration will actually help organically build consensus on the value proposition and any pivots that follow. Now, this might sound naive given that we are all working in different environments with a range of folks with dynamic personalities who are in various positions of power. In an enterprise environment, there are typically many stakeholders who each have a say on the product requirements based on their personal agenda or preference. I have had agency clients where the product requirements were locked in stone during a requirements-gathering phase that I was not involved in. For me to suggest conducting validated user research or creating an MVP to test during the design phase was blasphemy because it was counterintuitive to their fixed-fee pricing model.

If you happen to find yourself in this familiar position, that’s the exact moment that you need to become *intrapreneurial*. Intrapreneurship is the act of behaving like an entrepreneur while working within a large organization. You need to decide to take the fate of the product into your own hands through assertive risk-taking and innovation. Stand up and ask for the extra week or two to conduct validated user research. Or employ some guerrilla methods that are low effort to start, like grabbing people from the cafeteria that fit the persona or running a quick online survey.

Most people are afraid to be either entrepreneurial or intrapreneurial because they are risk averse. But I take a more existential viewpoint on the concept of risk-taking. I see the risk of doing nothing as a far greater threat to our career path and other passions. This is exactly

what I didn't do on the Oprah project when I was creating the bogus fictional personas. If had a do-over, this is what my 2007 process would have been:

1. Reach out to friends of friends who were fans of the *Oprah Winfrey Show*.
2. Ask them for 10 minutes of their time in exchange for a \$10 gift card.
3. Interview 7–10 of them on the phone while they surf the current website.
4. Synthesize my findings into my personas and ultimately into the project brief.

Yes, it would have been a small sample set. Yes, it would have personally cost me \$100 and two of my weekday evenings. But that would have been a small price to pay for the user research experience and insights I could have gained.

The bottom line is that confronting your target customers is nonnegotiable. We must learn as quickly as possible if the idea we are working on is stupid and worthless. We need to have an open mind to experiment and to fail. That's right, we are betting, and the odds are against us. In the end, though, this lean approach is more cost-efficient, meaningful, and swift.

Tenet 4: Frictionless UX

The “user experience,” or “UX,” is how a human experiences a digital product while attempting to accomplish a task or goal. Was it easy or difficult to use? Was it pleasing or frustrating? Was it useful or useless? The UX of a product can be the differentiator used as a battering ram against the competition.

Traditionally—if I dare use that word for a discipline barely three decades old—UX design is associated with artifacts for development and design execution: site maps, wireframes, user flows, and functional specifications. Recruiters for enterprises and agencies identify UX design with the job titles that create these deliverables, including interaction designer, information architect, and product designers. These definitions are used by large enterprises and agencies and are pretty much how UX design is currently practiced. Yet, what ultimately happens in this “traditional”

system is that the UX designer is forced to focus more on output deadlines rather than on increasing customer loyalty by designing the most important thing that the product does incredibly well.

Novice product leaders often fail to recognize the correlation between UX decisions and customer acquisition, retention, and monetization systems—basically how much their UX matters to their business strategy. Think about any transactional website or even a simple sign-up process. The UX design should be very concerned with barriers to entry that can prevent potential first-time users who have just heard about the product from converting to customers. UX strategists should be doing everything ethically possible to keep them coming back.

Interfaces and user flows should be geared toward successful outcomes. It's all about simplicity, engagement, and the practical usefulness of the product. This is what distinguishes a novice UX designer from an expert UX designer. Expert UX designers know how to guide the value innovation of a product in the following ways:

- They talk directly to potential users or existing frequent users of the product to discover and validate its primary utility with respect to the problem that must be solved. We'll learn more about talking to both customers and users in Chapters 3 and 8.
- They conduct competitive research and analysis on the existing market space to identify opportunities for solutions that make people's lives more efficient. We'll learn more about investigating market spaces in Chapters 4 and 5.
- They help determine the key features that are absolutely critical to your product. They use techniques like storyboarding to weave key features together in simple, elegant ways. We'll learn more about tactics for helping you discover value innovation in Chapter 6.
- They can rapidly create prototypes that are geared for testing business ideas. They design and run structured experiments for validating hypotheses. We'll learn more about all of this in Chapter 7.
- They work collaboratively with stakeholders and teammates at the idea's inception. Using measurable results, they make product strategy decisions based on real evidence rather than hunches. We'll look at both qualitative and quantitative research techniques in Chapters 8 and 9.

REMOVING FRICTION FROM EVERYDAY LIFE

A successful outcome is when a product empowers a user to do something that will make their life easier or better. Our goal as product designers is to remove or reduce the friction across all the essential interactions so that users always *feel* like they are in control of their destiny. People are enabled to do all kinds of things with technology now that in the past were a lot more challenging.

I, for one, was never good with maps or public transportation for getting around a city. This is especially true when I am traveling in a foreign land where I do not speak the language. That is why the public transit app Citymapper that was created by a startup in London is my favorite example of frictionless UX. The product gives me the freedom to use multiple modes of public transportation to efficiently navigate new cities without getting lost.

Over the next 12 screens (see Figures 2-7 to 2-18), I would like you to join me on a recent journey I took in Berlin. It was a sunny Sunday afternoon, and I wanted to hang with my friend David, an expat writer from New York City. In less than an hour, I needed to get from Prenzlauer Berg to Kreuzberg, where he and his daughter were waiting for me at a flea market. Here's how it went.

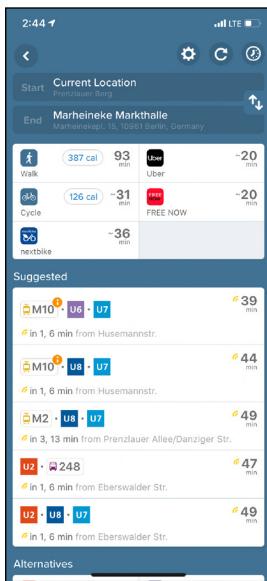


FIGURE 2-7

I view my route options

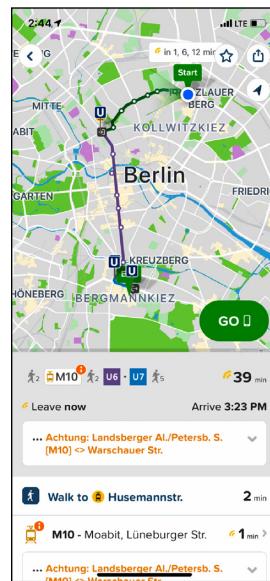


FIGURE 2-8

I view the overall journey and walk to the tram platform



FIGURE 2-9

At the platform, I see from the sign that the tram is on schedule

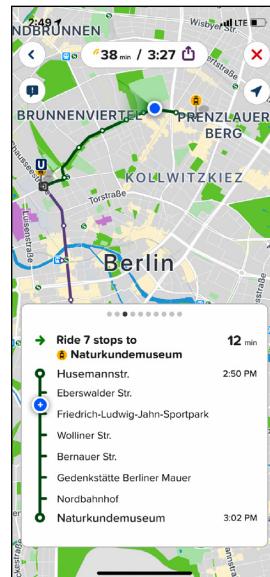


FIGURE 2-10

I see that I'm approaching the second of seven stops

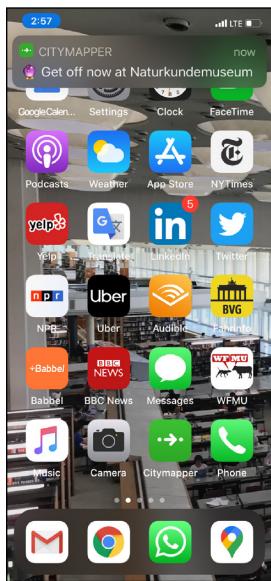


FIGURE 2-11

My phone alerts me to get off at the next stop

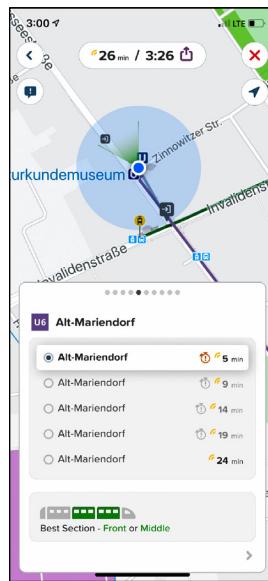


FIGURE 2-12

At the U-bahn platform, I see the best section to sit on the train



FIGURE 2-13

The train enters the station at the expected time

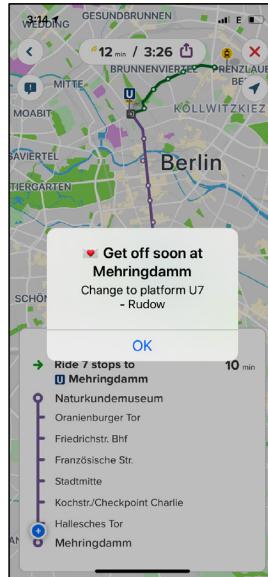


FIGURE 2-14

My phone alerts me to prepare to change platforms at the next stop

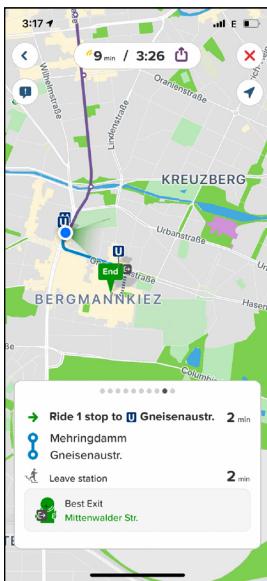


FIGURE 2-15

I see what is the best exit to leave the station once I get off

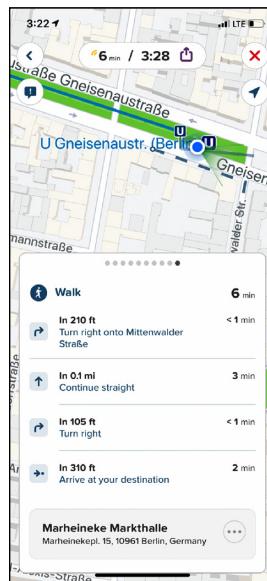


FIGURE 2-16

I check to see my walk route and how long it should take

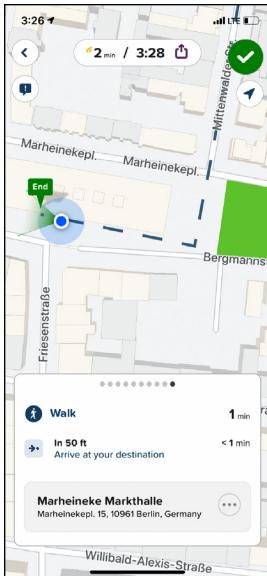


FIGURE 2-17

I see I'm at the end of my walk route and put my phone away



FIGURE 2-18

I meet my friend and his daughter at the flea market on time

As you can see, each step of the way I knew where I was, what I needed to do next, and almost exactly when I would get to my destination via one tram, two trains, and a short walk. Along the way, the app held my hand, making suggestions about where I should sit on a train and what station to exit from to optimize my route. For many years, Citymapper has been an indispensable part of my life.

Products like Citymapper got to where they are not by execution of a static business plan, a one-week design sprint, or a two-week UX discovery phase but through experiments, failure, and iterations over months and sometimes years. It was the insights born out of strategic meanderings that blossomed into awe-inspiring product design. It's how the founders and teams behind the scenes took risks while assembling the building blocks of their products' business models. They fine-tuned their strategy and acquired fervent customers.

Over the course of the book, I will discuss other products that have frictionless user experiences. These are UX designs that didn't just "happen" through good luck, ideation sessions, or "genius design." They're frictionless through the manifestation of the four tenets. It's only with practice and mindfulness that we will come to understand the product as a sum of both its tangible and intangible parts.

Recap

UX strategy is an empirical practice. It's not a means of formulating and executing a perfect plan; rather, it's about being able to research what's out there, examine the opportunity space, test hypotheses, fail, learn, and iterate until you devise something of value that people truly want. You will need to take risks and accept failure. You'll learn how to fail smartly by doing rapid experiments to validate that your strategy is moving your team in the right direction.

Defining the Initial Value Proposition

*To know what a business is we must start with its purpose. Its purpose must lie outside of the business itself. In fact, it must lie in society since business enterprise is the organ of the society. There is only one valid definition of business purpose: to create a customer.**

—PETER DRUCKER

AT THE BEGINNING, YOU DON'T SIMPLY DEFINE YOUR SOLUTION. Rather, you first need to figure out what problem you're going to solve and what kind of customer needs it solves the most. That's a lot to figure out, and getting one part wrong could turn your vision into a delusion. So to stay grounded, you're going to dig into Tenet 1: Business Strategy and Tenet 3: Validated User Research. (See Figure 3-1 and refer to Chapter 2 if you need a refresher on the four tenets of UX strategy.) In this chapter, you will learn how to create a value proposition, which is the magical thing that you must make tangible for customers. Then, you will conduct customer discovery to learn who your customers are and if they have a strong need and desire for your value proposition.

* Peter Drucker, *Management: Tasks, Responsibilities, Practices* (New York: Harper Business, 1973).



FIGURE 3-1

Tenet 1 and Tenet 3: Business Strategy and Validated User Research

The Blockbuster Value Proposition

When I was in eighth grade, I used to pretend I had a stomachache so my mom would take me to work with her. She was a legal secretary at Burbank Studios, and I loved wandering the back lots, hiding on sets, and watching crews shoot television shows and movies. It was like walking around a fantasy world. The younger me of 1978 just couldn't imagine a cooler job. And that's why the older me of 2012 was particularly excited when a blockbuster movie producer arranged a meeting with me at a bungalow on the same lot. He wanted to consult with me on an idea for a product to see if it "had legs."

FADE IN:

EXT. BUNGALOW – MORNING

The shot starts long and then pans up through the window of the bungalow.

CUT TO:

INT. BUNGALOW – MORNING

A production assistant leads our UX strategist JAIME into the room. The movie producer PAUL is seated behind his desk. He stands up to greet her. They shake hands and then settle into their seats. The assistant leaves the room.

PAUL

So I have an idea for an ecommerce site,
and I'm hoping you can help me with it.

JAIME

Let's hear it.

PAUL

It's like an Amazon.com Wish List for the Busy Man who needs help shopping for his wardrobe.

JAIME

Can you tell me more about this "Busy Man"?

Paul gets really excited. He leans forward and gesticulates a lot while describing the Busy Man to Jaime.

PAUL

He's the guy whose life is his work. He makes good money but doesn't have time to spend it. He loves high-end products but hates shopping for them. He's sick of repeating himself to salespeople but still wants to get the VIP treatment.

Jaime leans forward, hands resting on her knees. She takes a beat before speaking.

JAIME

That's very specific. But do you think this is a problem for most busy men? Do you think they need it solved?

PAUL

Absolutely! I certainly do!

In Los Angeles, it's easy to run into Hollywood types who pitch movie ideas and tech entrepreneurs who pitch internet product ideas. What's funny is how similar they are. Both want to create something original and compelling that makes lots of money. Both need to raise a ton of cash to make their ideas into reality. But, this requires spinning a good story to convince potential stakeholders and investors that there is an audience out there who will want the idea.

Most investors know that the odds are not in their favor because the market is constantly being inundated with schlock—crappy movies and crappy apps. Then again, when something is truly great, the payoff can be major, and not just in terms of the money. Having a hit is also what gives us fulfillment as content and product creators. We want to create something that people find useful and meaningful—something maybe even our mom will like!

However, there is one major difference between making movies and making digital products. With films—no matter if the strategy is casting big-name actors, creating everything from sequels to board games, or using well-worn plots and tropes—there are hardly any opportunities in the process of making the film to “de-risk” it through empirical feedback. Sure, filmmakers can test early cuts on their target market, but typically at that point, reshooting is an unaffordable option. With digital products, you can “test market” your concepts on your target audiences much earlier and with much less fidelity to the intended idea. You can reality check your team and ensure that everyone is on the right path. There is no reason to live in a fantasy world unless you enjoy the risks of big gambling.

Lessons Learned

- Just because your stakeholders (or you) really want your product doesn't mean anybody else will. Most startups fail because the market doesn't necessarily need the product.
 - You need to ground your stakeholders and team in reality with empirical evidence. You must turn assumptions into facts.
 - Don't take what your stakeholders or team says at face value. To learn what potential customers want, hunt them down in person.
-

What Is a Value Proposition?

A value proposition takes the form of a concise statement that summarizes the unique benefits customers can expect from your product or service. Think of it as an elevator pitch, which is when you distill something into an easy-to-remember, compelling phrase. Here are examples of value proposition statements for a few well-known products:

- Airbnb is an online community marketplace for people to list, discover, and book accommodations around the world.
- Waze is a mobile navigation app that enables drivers to use live maps and get real-time traffic updates and other road data.
- Slack is an enterprise software platform that allows teams and businesses of all sizes to communicate effectively.

No matter what environment you work in as a product maker, you are constantly getting pitched or pitching value propositions. Before their products became household names, just imagine how many times the teams at Airbnb, Waze, and Slack had to iterate on their value proposition statements until they finally clicked with investors.

It's common for value propositions to get truncated when they are first being developed. The reason is that the team or founder may not yet know how best to describe their idea, so they use known references. This was a running joke in the award-winning 1992 movie *The Player*, where a screenwriter is pitching a movie idea as "It's *Out of Africa* meets *Pretty Woman*." This kind of shorthand is also common in the digital product world. In fact, there's even a website called *itsthisforthat* (<https://itsthisforthat.com>) that generates random value propositions as fast as you can click the refresh button. I generated the one shown in Figure 3-2.

Let's deconstruct the website's value proposition formula.

The *this* essentially describes the magical powers of the product. The *this* for the dating app Tinder is how you can immediately let someone know you find them attractive with a swipe interaction. The *this* for Waze is how you can find a driving shortcut because other people around you have their Waze app open and are providing you with real-time data to maneuver around traffic jams. The *this* is the mental model; it allows people to easily understand the interactive dynamics of a product and how they might use it.



FIGURE 3-2

A machine-generated value proposition that says “Airbnb for Wedding Venues”

The *that* describes either the specific customer segment or their need. The *that* for Tinder is people looking for an easier way to “hook up” instead of having to fill out a time-consuming dating profile. The *that* for Waze is drivers who want to avoid getting stuck in traffic even if it means taking routes off the beaten path. The *that* clues us in on who might want or need the *this* and why. What this formula does is give us a fast way to articulate a solution.

But value propositions are not valuable if they do not solve a real problem. I’m not talking about minor problems like a scraped knee; I’m talking about painful broken-leg problems. I’m talking about those problems that hinder a certain set of people from doing what they need to do in a timely manner. By solving this kind of problem, a solution would give relief or joy to this large set of people. You need to know everything you can about those problems and people *before* you build out those solutions because building software takes time and money. Thus, it’s a risky endeavor to just begin building a new innovative product based on a hunch.

Because what if you are wrong?

Or your boss is wrong?

Or the client is wrong?

Or even the successful movie producer guy is wrong?

Or this digital value proposition that we generated in .05 seconds is wrong?

The answer is simple. If the person with the big hunch is wrong and your team doesn't find out until after the money is gone, everyone has failed in making something with a *true* value proposition. Everyone involved has only succeeded in wasting their resources. And because this is the infancy stage of your product strategy, you don't want to get too attached to any ideas—especially without proper validation that *real* customers will *really* want the solution.

If You Don't Want to Live in a Fantasy World...

Just follow these five steps, which I will walk you through in detail:

Step 1: Define your primary customer segment.

Step 2: Identify your customer segment's (biggest) problem.

Step 3: Create provisional personas based on your assumptions.

Step 4: Conduct customer discovery to validate or invalidate your provisional persona and problem statement.

Step 5: Reassess your initial value proposition based on what you have learned!

Rinse and repeat until you have strong measurable signals that you are on the right path.

STEP 1: DEFINE YOUR PRIMARY CUSTOMER SEGMENT

Because you and your team are launching an innovative product, you are starting with zero customers. Therefore, if you think your customer is everybody, think harder. Otherwise, you're facing an uphill battle in customer acquisition. Which is easier: getting everybody to use your app or getting people who really need it to sign up? Many hit digital products have done just that. When Facebook launched, it was exclusive to students at Harvard University and not the entire world. Airbnb

tested out its product in 2008 during the Industrial Design Conference in San Francisco, and even Tinder did its initial pilot project by focusing on college students at the University of Southern California.*

The customer segment is a group of people with a common need. These segments can be identified by a combination of demographic, psychographic, and behavioral attributes. Examples of customer segments include low-mileage suburban drivers who feel ripped off by traditional car insurance companies, 30-somethings in Brazil who have a hard time finding dates, and aspiring rock musicians living in big cities who desperately need a place to practice. Your customer segment's need or pain point must be severe because there is a lot of risk involved in trying to change how people get something done.

So, let's go back to the computer-generated value proposition and imagine the most obvious primary customer. Who the hell needs to plan a wedding? Hmm...as Figure 3-3 demonstrates, maybe a spouse-to-be? Yes, let's go with it!



FIGURE 3-3

Mock-up of a typical first page of a pitch deck with the name of the product and value proposition

* "Tinder and Bumble Are Throwing Parties at Frat Houses," *Inside Hook*, August 21, 2019, <https://oreil.ly/q3VIH>.

STEP 2: IDENTIFY YOUR CUSTOMER SEGMENT'S (BIGGEST) PROBLEM

The problem should be specific. And it can be written as a problem statement. A problem statement is a short, clear explanation from the customer's perspective of an issue that needs to be addressed. The problem statement should not presuppose a solution until the problem has actually been validated. By having product teams focus on the problem statement, they are more likely to have an open mind when ideating on solutions.

This is why it is crucial to acknowledge that you and your team are working solely on assumptions, and that's just the reality of where you begin when making a product. An assumption is something that you suppose to be true, such as, "People who work in tech know how to fix computers." Or, "Our customer segment loves vegan ice cream." You make assumptions about your users and their needs and how to meet them. You just need to be very honest about the assumptions you're making and take them for what they are: guesses. Or, as the great Coach Buttermaker (Walter Matthau) in my favorite childhood movie the *Bad News Bears* said to his baseball team, "When you 'ASSUME,' you make an ASS out of U and ME."

Now let's write out a concise problem statement. Here is an example:

Spouses-to-be in Los Angeles have a hard time finding wedding venues that are affordable.

If proven true, this would validate a potential need for this value proposition:

Airbnb for Weddings is an online marketplace for listing and renting private properties as wedding venues.

It would seem, then, that the next logical step would be to start dreaming up the entire feature set for this much-needed solution, right? No. Not yet.

If you are a problem solver, which is instinctual for UX designers, product makers, and entrepreneurs, this process feels backward

Don't build your product's UX around a value proposition unless you have tangible evidence that people will want the product!

at first. That's because it is. We are reverse-engineering the concept of our solution to validate the assumptions about the customers and their problems. This approach is particularly important for those of you who have produced dozens of products, including very successful ones. Don't believe your own hype. Instead, approach every new product or project like an experiment.

As I mentioned in the Preface, I've been a part-time college professor for more than 25 years. I have always run my courses the same way. In the first week, the students have to think of problems they would like to solve using technology. Each week, they build toward the final course project, and that is to pitch a real product that they've tested using the methods covered in this book. One semester I offered UX apprenticeships to my students Bita and Ena to take on the "Airbnb for Weddings" product vision. I'm going to present their methods and results to show how you can give any value proposition a real shot to see if it is viable. Their first assignment was to create a provisional persona.

STEP 3: CREATE PROVISIONAL PERSONAS BASED ON YOUR ASSUMPTIONS

Personas can be a helpful tool in giving stakeholders and the product team a realistic sense of what the end user's needs, goals, and motivations are. They keep us from designing for ourselves and focus us on the user. However, the concept of personas has had a tumultuous history with advocates on both sides of the table, so I'm going to give you a little lesson on it to explain why I'm using them here.

In the early days of software design, the engineers who developed and programmed the products were also typically the designers of the product interfaces. These product interfaces were rarely user friendly because they were not tested on the end user of the product. Too often, interfaces were pasted together in a hurried fashion to be able to meet a shipping date.

Alan Cooper, a widely recognized Bay Area software designer and programmer who invented the visual programming language Visual Basic in 1988,* knew this problem all too well. In 1995, he invented personas and wrote books to help software teams embrace a goal-directed

* “Alan Cooper,” Wikipedia, <https://oreil.ly/5GeHk>.

design methodology. To Cooper, personas were a critical tool to inspire product stakeholders to make more user-friendly interfaces.* But to achieve this kind of persona, it meant that months of qualitative ethnographic research had to be conducted to create an authentic model of each end-user.

By 2002, personas were a popular tool in the designer toolbox, but they weren't often used to achieve their original purpose. Instead, big interactive agencies such as Razorfish or Sapient used personas to upsell the discovery phase to clients. When used in this way, personas were often laughable caricatures packed full of stereotypical details based on nothing more than marketing data at best. In fact, this is what happened with the three personas I constructed for the Oprah.com redesign, which I discussed in Chapter 2. The personas that made it to the discovery brief were depicted as three fictional people from different minority backgrounds but only because Oprah had a massive multi-racial following. In reality, ethnicity had little to do with the UX of the product. Did black Oprah fans need a different interface or feature set than white Oprah fans? In this way, the personas failed to inform the strategic process. As Cooper cautions, "Don't confuse persona archetypes with stereotypes. Because personas provide a precise design target and also serve as a communication tool to the development team, the designers must choose a particular demographic characteristic with care."

By the third edition of Cooper's book *About Face* in 2007, he added a new section called "When Rigorous Personas Aren't Possible: Provisional Personas."[†] The concept was geared for product makers who did not have the time, budgets, or corporate buy-in to perform the fieldwork necessary to gather detailed data. Instead, they were a simple collaborative group exercise for designers and nondesigners to quickly create. In fact, the product designer and author Jeff Gothelf later reintroduced them as "Proto-Personas" in his 2016 book *Lean UX*[‡] as a tool to help executives align on how they think about the customer.

* Alan Cooper, *About Face* (Hoboken, NJ: Wiley, 1995).

† Alan Cooper, *About Face*, 3rd ed. (Hoboken, NJ: Wiley, 2007).

‡ Jeff Gothelf, with Josh Seiden, *Lean UX*, 2nd ed. (Sebastopol, CA: O'Reilly, 2016).

I prefer the term *provisional*, meaning “existing for the present,” because it implies it will possibly be changed later. This is because our ultimate goal is to convert our provisional personas into validated personas through the process of conducting customer discovery. In this context, you will use the provisional persona as a helpful communication tool to depict your presumed customer segment and align your team on the most important assumptions. This gives everyone a starting point for the validation process in terms of what questions are mission critical to ask. Thus, you can think of a provisional persona as a “placeholder” persona for conducting a form of validated user research.

And because we are eventually using this type of persona creation as both a recruiting and marketing tool, we need to learn to paint all the characteristics using medium-size brush strokes. We want a persona that isn’t too specific, in which only a handful of people are represented, and we don’t want a persona too broad, in which everybody is represented. In Chapter 9, we will use our validated persona to inform our landing page campaign to acquire users through microtargeting on Facebook. Because running an online ad campaign costs money, this process is an important reality check for turning a fictional representation into something that is based on proven facts.

Provisional persona layout and breakdown

The provisional personas will collect and present the assumptions you are making about your primary customer segment(s). Therefore, all information will be contextual to the presumed customer segment and relevant to the initial value proposition. Demographic details and user behaviors need to be reflective of the audience you’re targeting as opposed to just one person. Do not dump a bunch of marketing data into the persona. You want to focus your personas on what you assume is critical for summarizing your customers’ needs and how they are currently dealing with your problem.

For B2B products, you should create two personas: one for the person who will be paying for the product (i.e., the CTO) and one for the person who will be using the product (i.e., the employee). In this case it makes sense to call them “provisional customer persona” and “provisional user persona,” respectively.

Because you are using the provisional persona purely as a thinking tool to get a sense of your primary customer segments, you and your team want to keep the layout and content simple. In the provisional personas that follow, Bita and Ena used a basic template I provided. It has a two-by-two grid with a section for each part.

Figure 3-4 shows the provisional persona that Bita created for Airbnb for Weddings.

Figure 3-5 shows what Ena developed.

Even though these personas have the same value proposition, they are quite different because they were created by two different people with two different perspectives. Bita assumed that her customer was someone like herself: a professional woman in her thirties. She is middle class and works full time. Ena, however, assumed that her customer was a younger 20-something person who did not work full time because they might be in graduate school or a freelancer just starting their career. This younger spouse-to-be is more interested in having a lively party on the beach with all of their friends than something more formal.

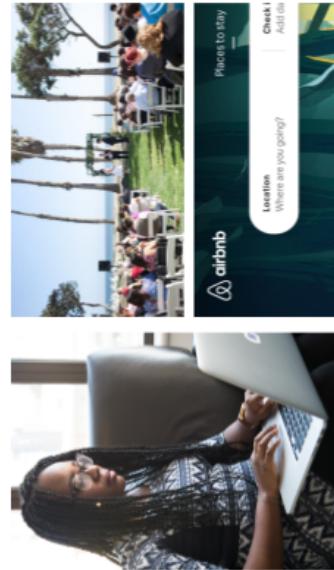
Which persona is the right one? It doesn't actually matter because Bita and Ena are working with assumptions that have yet to be validated. Perhaps the solution could meet the needs of both personas. Regardless of who ends up being more "right," the provisional personas help Bita and Ena paint a clearer picture of their presumed customers.

The provisional persona is made up of these four sections:

Segment name and photographs/sketches

Because the provisional persona represents a group of people rather than one person, think of a concise, descriptive name to characterize the segment, such as "Gen X Parents in Los Angeles" or "Jewish Expats in Berlin." I find it useful to articulate common demographic denominators. Location is useful because it forces your team to pinpoint where a market for your product might exist instead of targeting the entire world. Be careful when you use certain labels because the cohorts they represent might be multidimensional. For example, "millennials" or "baby boomers" or "college-educated" or "low income" can encompass a wide spectrum of people.

Value-conscious spouses-to-be in Los Angeles



Description

Engaged person in their 30s

Lives in Los Angeles

Employed full-time

Behaviors

Looks at parks and gardens as possible venues

Does wedding planning on her lunch hour and on weekends

Open to compromise to save money

Has used Airbnb to find unique places to stay

Needs & Goals

Dreams of a formal mid-sized wedding

Wants the ceremony to be outdoors

Needs the total cost to stay within budget

Needs an easy way to learn more about venues without having to call each one

FIGURE 3-4

Bita's provisional persona for a value-conscious bride-to-be in Los Angeles

Party-centric spouses-to-be in Los Angeles

Description	Needs & Goals	Behaviors
Engaged person in their 20s	Needs to pay for the wedding themselves	Loves to go to parties to meet new people
Lives in Los Angeles	Wants a small wedding on the beach	Constantly on Pinterest for inspiration
Working/middle class	Wants to have a DJ to blast music all night	Relaxes by going to the beach
Doesn't work full-time	Wants to do all the planning online	Uses Airbnb to save money



FIGURE 3-5

Ena's provisional persona for a spouse-to-be

It's useful to revisit or tackle this section last since the other sections might help your team better align on their definition of the customer segment. But once you do have it, search for representative imagery. Some practitioners caution against using photos as they fear it'll reinforce stereotypes. According to Alan Cooper, "Photographs help them feel more real as you create the narrative and engage others on the team." Because it's a segment, I prefer to use a collage to depict various aspects reflective of the segment.

For our value proposition, this means my students looked for photos that depicted wedding venues, spouses-to-be, and different planning tools used. Don't spend more than 10 minutes on this because you are using the provisional persona as a starting point. Once you have conducted customer interviews, you will likely update the photos.

Description

How would you describe this group of people using three or four crucial demographic statements? Include the city where you plan to conduct your research study, and make sure that this crucial data point gets validated. Include gender only if you believe the problem you are solving is predominantly felt by people of a specific gender. If the segment represents people within a certain income bracket and you believe it's pertinent, then include it. The same goes for age group and education level.

When you conduct your customer interviews, you may have to ask personal questions to make certain the participant matches the characteristics of your persona. This section should focus on describing the segment, not their activities or needs. Save those statements for the next two sections.

Ena originally put "in graduate school" as a descriptor. But this specificity is too exclusionary and irrelevant for Airbnb for Weddings. So I had her update it to "doesn't work full time," as you can see in her persona (Figure 3-5). Meanwhile, Bita's profile included "employed full time," which is relevant because it means that the segment doesn't have a lot of free time to be wedding planning.

Behaviors

Motivation and behavior lie at the heart of value creation. In 2016, Clayton Christensen endorsed a theoretical framework called *Jobs to Be Done* (JTBD), aka *Jobs Theory*.^{*} The main premise of the theory is that a customer's need is like a job that needs to be done in order for them to make progress in their life.

If they can't accomplish that job, then that customer has a problem. In this framework, customer behaviors are called *job drivers* and are critical factors for segmentation. Therefore, whatever product you are devising, it is crucial to understand what will motivate people to use it. Read Jim Kalbach's excellent book *The Jobs to Be Done Playbook* to learn more about how to put Jobs Theory into practice.[†]

What's important about these behavior statements is how they describe both the action and motivation of the user.

When you describe your user's behavior, you want to think about their mindset and environment. Where and when are they trying to solve the problem? What tools are they currently using? Are there psychographics that affect their behaviors? Are there work-arounds they are using to help them accomplish their goals?

In the previous example (Figure 3-4), Bita guessed that her bride-to-be is value-conscious and interested in unique venues. But how do we validate whether or not a person is value-conscious when planning their wedding or that they want to have the event at a unique wedding venue? This is when a behavioral statement might be a more useful guide than a simple adjective. Bita framed her user's behavior as "open to compromise to save money" and "has used Airbnb to find unique places to stay" because she believed that would drive their decision making.

* Clayton Christensen, Taddy Hall, Karen Dillon, and David S. Duncan "Know Your Customers' 'Jobs to Be Done,'" *Harvard Business Review*, September 2019, <https://oreil.ly/zW3Xm>.

† Jim Kalbach, *The Jobs to Be Done Playbook: Align Your Markets, Organization, and Strategy Around Customer Need* (New York: Two Waves Books, 2020).

Other examples of behavioral statements include:

- Goes to punk rock shows weekly to meet interesting people
- Avoids animal products for environmental reasons
- Watches German movies regularly to become familiar with the language

But whether you choose statements or adjectives, choose your terms with care so that they are not too general, too specific, or too hard to validate.

Needs and goals

This category explains what the customer requires to solve their problem and accomplish their objective. To figure this out, we should ask questions like, What are their product-relevant hopes and dreams? What do they need to solve their primary pain point? What specific needs or goals aren't being satisfied by available solutions or workarounds? What are the limitations they face? What is the job they are trying to get done?

A common mistake is to make this section sound like a value proposition or a feature list. People who don't work in technology don't typically say things like "I need an app or online platform for..." or "I need the ability to add collaborators to my account." What they might say is "I want to share my wedding ideas with my fiancé so he can see them on his own computer." The latter statement focuses on the actual human need that can be solved in a variety of ways. For B2C products especially, it's more useful to ask about someone's process of planning with their spouse-to-be than it is to ask if they would like a collaboration feature.

Another mistake is not being specific enough. In the example by Ena, she is assuming that her customer segment wants to have a small wedding on the beach. This statement cannot be validated unless small is better defined (i.e., 50 people or less). What is small to one person may be a huge wedding to someone else. Conversely, you should not be too generic either. Most people will agree with blanket statements like "Wants to have a nice wedding." What happily engaged person would prefer a terrible wedding? That super-general statement does not get you closer to understanding the potential customer.

This section is particularly important to get right because it will inform your product strategy the most. You want actionable statements that address underlying customer concerns.

Other examples of needs and goals statements include:

- Needs an easy way to stay abreast of upcoming punk shows in Los Angeles
- Needs to know which local restaurants serve good vegan meals
- Wants to relocate to Europe to experience a different culture

Remember that everything in the persona you just created remains an assumption until proven true or false. So now you need to get out there and find those customers in real life to see what they really think!

STEP 4: CONDUCT CUSTOMER DISCOVERY TO VALIDATE OR INVALIDATE YOUR PROVISIONAL PERSONA AND PROBLEM STATEMENT

In 2005, Steve Blank, a long-time Silicon Valley entrepreneur, published *The Four Steps to the Epiphany: Successful Strategies for Products That Win.** Although his methodology revolves around four phases, I'm going to ruminate on the first one: customer discovery and how it's part of your UX strategy.

Customer discovery is a process used to discover, test, and validate whether a specific product solves a known problem for an identifiable group of users; it is essentially conducting user research. However, you don't want to just watch people, empathize with them, and then make judgments. Instead, you want to "get out of the building" and get customer validation, which is foundational to the Lean Startup business approach and Tenet 3: Validated User Research. You want to actively listen to people and engage them because your goal is to uncover the specific problem that they need solved.

This might sound like an obvious thing to do, but shockingly, the majority of stakeholders whom I work with in enterprises and startups don't talk directly to customers. In fact, before Lean Startup, the norm was that companies would just build the product without talking to

* Steve Blank, *The Four Steps to the Epiphany* (Plano, TX: K&S Ranch Press, 2005).

them. Much like Paul the movie producer, the stakeholders or product team assume that they are aware enough about the problem because they have it personally or know someone who does. At the enterprise level, there are several possible reasons for this: ignorance, understaffing, laziness, and so on. In contrast, startup founders have a tendency to be like screenwriters sweating away at a script that they never show anyone. They're frightened of what their target audience might think because nobody wants to hear that their baby is ugly.

In an ideal world, customer discovery is a collaborative process involving as many members of the product team going out into the field as possible. Collaboration will also help organically build consensus on a shared vision for the product. If the people you work with don't want to do customer research, do it for yourself. Do it on the sly without waiting for permission from your boss, the client, or any naysayers. What is crucial is that it is attempted. You can come back from your research and share your discoveries anecdotally with your team as long as you have the data to back it up. If nobody wants to listen, you can decide at that point if you want to continue working on that project or with your current team or with your current employer. But at least get out there and gather verifiable evidence that might make your product better in the time that you have to work on it. Own your destiny. In Chapters 8 and 9, I will share quick and low-cost techniques for doing so.

We've touched on some reasons why product makers become very protective of their ideas. Fortunately, Bita and Ena aren't emotionally attached to the value proposition I generated off the internet. They just need to validate their initial assumptions, and that's exactly what they're going to do. They're going to get out of the building (office or classroom) to conduct interviews.

The customer interview

During customer discovery, the goal of the customer interview is to talk to real people who match your provisional persona. Too often product makers and tech entrepreneurs like to extol the virtues of their awesome value proposition. But if you just start pitching ideas at strangers,

they tend to just nod their heads in agreement to quickly get the hell away from you. That's not the validation you need or want. Customer discovery is about listening and not selling.

You need to identify two or three nearby locations where you can make direct contact with your proposed customers. You can't hide behind your desk. Think creatively about where your customers lurk by focusing on the types of activities or jobs they might be doing. There are going to be many cases where you simply can't find them in person. The reasons can vary from time to geographic constraints. In fact, your customer segment might even be much easier to find on the internet. In Chapter 8, I will talk more about online recruiting for user research.

In the case of Bita, her provisional persona was a value-conscious bride-to-be. Bita decided to hit the malls of Los Angeles, where she thought she could find people who matched her persona. Her first stop was the Westside Pavilion in West Los Angeles. This mall had plenty of kids' clothing stores such as Gymboree and Baby Gap where mothers with babies shopped. This was certainly different from what I was thinking, which was that Bita would find people in the midst of shopping for wedding gowns. Bita actually dismissed that idea after being thrown out of a bridal shop. But she wasn't discouraged by the event. Instead, she learned from it and brainstormed new places where she might find her users.

Bita's idea was that these new mothers might give her insight about planning a wedding because they may have had one before starting their family. And because they had very young children, their wedding may have been more recent. Bita dressed professionally and appropriately. She carried a clipboard with multiple printouts of her questions with space between questions for writing their responses. She approached her targeted customer with a smile and only if the timing was right, like when the baby was asleep in a stroller.

The customer interview is actually made up of three parts: the introduction, the screener, and the interview. This was Bita's script when she approached a mother and her child.

Do not ask a screener question that validates or invalidates your problem statement!

Phase 1: introduction

Hi, I'm Bita. I'm conducting research on a product idea for an internet startup. Can you spare a few moments to answer questions related to wedding planning? I am offering a \$5 Amazon gift card as compensation for the interview.

This introduction is carefully worded to quickly explain why you are talking to them and what you need from them. You can try approaching people first without offering them an incentive. However, you are asking people for their time, and a \$5 gift card to Amazon or a nearby café shows that you value their time. By including the words “for the interview,” you are safeguarding yourself from paying those who don’t pass the screener. You can also remember to caveat the screener questions with “But first let me just ask you...”

If the woman she confronted seemed open to chatting, Bita immediately launched into her screener questions.

Phase 2: screener

A screener is a short list of one to three questions used to qualify potential participants. Screener questions are critical because you cannot assume that every person you approach is somebody who is appropriate for your study. The purpose of these questions is to filter out people who do not match your provisional persona.

For example, if your problem statement is “Busy professionals in LA have a hard time knowing what gifts to buy their loved ones,” then your screener question could be “Do you consider yourself a busy professional?” If they say “yes,” you can follow up with “When was the last time you bought a loved one a gift?” You decide what the cutoff is for how recent it needs to be. This question gauges whether or not the person regularly engages in the activity of gift buying. It is specific to the problem statement, but it is not a leading yes-or-no question or something most people would have the same answer for.

Doing so will contaminate your study because you won’t be able to measure what percentage of your presumed customers actually have that problem. It also means you cannot learn from those that have solutions. For example, if your problem statement is “Busy professionals in LA

have a hard time knowing what gifts to buy their loved ones,” then your screener question should not be any version of “Do you have a hard time knowing what gifts to buy your loved ones?”

Screener questions should seem nonintrusive to the participant, but you know they are dealbreaker questions. To construct them, it might be helpful to work backward. What are the exact answers you must hear from someone to qualify them? Sometimes, it takes a few iterations of your screener questions to ensure that you are talking to the right people.

Here are the screener questions Bita used:

- 1.** Are you married, and if so, when did you get married?
 - Got married in the last two years (continue to question 2)
 - Not married or married more than two years ago (kindly end the interview)
- 2.** What city did you get married in?
 - Los Angeles (interview the person)
 - Anywhere other than Los Angeles (kindly end the interview)

Based on Bita’s persona, the goal of her screener questions is to identify if the person she’s interviewing recently planned a wedding in Los Angeles. She needed participants with fresh memories of their process for planning a wedding.

Phase 3: the interview

If a person passed the screener test, Bita was able to move on to the actual interview questions. These are the ones asked with the intention to validate each assumption you made about your customer segment. Bita’s persona (Figure 3-4) had a total of 11 assumptions across the description, behaviors, and needs and goals. Therefore she needs to generate questions and prompts that will determine the accuracy of the assumptions. For examples, the behavior statement “Looks at parks and gardens as possible venues” needs a question that addresses where she looked for wedding venues. If the participant answers with those types of locations, then that would confirm the assumption. If the majority of the participants don’t mention parks or gardens, then the statement needs to be updated after the first set of interviews to be more accurate.

Let's take a look at how Bita handled her interview questions:

1. Do you work full time or part time?
2. How did you go about planning your wedding?
 - Prompt for both venues they had considered and also the one they picked
 - Prompt for how they discovered and learned about each venue
 - Prompt for tools/means, such as internet, word-of-mouth
 - Prompt for when they planned, such as at work, in the evenings, on the weekends
3. Would you say your wedding was more formal or more casual?
4. Did you make any compromises when planning your wedding? Why?
5. Did you have a budget for venues, and were you able to stay within that budget? (If not, by how much more?)
6. How many people did you have at the reception (for example, 50 to 200)?
7. What were some of the challenges you faced in finding the venues (Prompt: e.g., finding the ideal location, such as by the beach)?
8. How did you overcome these challenges? Did you end up having to compromise on your ideal wedding?

These questions actually set up the context for our solution. Now that the participant has that context, it's time for Bita to ask her money-shot question.

9. Have you ever heard of or tried a website called "Airbnb"?
 - Yes (continue to question 7)
 - No (quickly explain Airbnb's value prop with respect to the part about short-term subletting and continue to question 7)
10. If there were a website, like Airbnb, that gave you numerous choices of gorgeous homes with big backyards in LA that you could rent specifically for a wedding event, what would you think?

You end with your money-shot questions, which are when you actually pitch your initial value proposition. You want to listen and not sell. See how open-ended Bita's questions are? She's just pulling the trigger on the solution to see what response she gets without trying to bias the participant in favor of or against it. When you ask the money-shot question, just capture the essence of the person's response and, if appropriate, ask any relevant follow-up questions.

Thank the person, give them the gift card if you offered them one, and let them go on with their day. Ideally, you will collect at least 10 complete interviews from screener to money-shot for this initial round of customer discovery. This should be enough to see patterns across multiple dimensions.

Two-sided marketplaces

What if you need two distinct customer types for your product to have value? A two-sided marketplace is a platform for value exchange between two distinct user groups. Two-sided markets drastically affect the product strategy because they require two different user experiences—one for each customer segment. Companies like eBay have buyers and sellers. Airbnb has hosts and guests. Eventbrite has event producers and event attendees. These platforms are insanely good at frictionlessly bringing together these customer segments through distinct feature sets.

The real Airbnb is a digital platform that facilitates one set of customers (hosts) who sublet their properties to another set of customers (guests). Airbnb then collects a small percentage of the transaction from both “sides.” This is the essence of a peer-to-peer business model (also known as *collaborative consumption*), which would be the same for Airbnb for Weddings. So for Bita and Ena to help spouses-to-be find affordable wedding venues, they must match them up with the other side of the market: people who are willing to rent their homes out for a wedding event.

Ena realized this during her customer discovery. Consequently, she took a step back and created a provisional persona of her other primary customer, which you can see in Figure 3-6.

Homeowners with big backyards in Los Angeles



Description

Couple in their late 40s to 50s
Lives in a house with a large backyard
Lives in Los Angeles
No children living at home

Behaviors

Uses Airbnb or VRBO to rent out their home
Puts effort into maintaining backyard
Responds quickly to emails and texts to keep on top of things
Hosts parties in their backyard for friends

Needs & Goals

Needs to find a way to supplement their income
Wants to put their spacious property to good use
Needs to know that their property will be safe
Wants an easy way to sublet their home for more money than they earn using Airbnb

FIGURE 3-6

Ena's provisional persona for a potential wedding venue host

This is the customer segment that also must exist to make her value proposition work. Ena needs people who own nice homes in Malibu and are open to imaginative solutions for taking advantage of their home's value. They are probably older than our spouses-to-be and quite concerned that their homes don't get trashed, or so Ena's persona assumes.

I asked Ena how she planned to validate this provisional persona. Where would she find people of this type? Would she knock on big fancy doors of homes by the beach? Good luck. Maybe she could ask people who were shopping at the high-end grocery store in Malibu if they would rent their home. I was concerned that she was chasing a persona that wouldn't be easy to verify. So I sent her out to do more customer discovery.

The following week Ena came back with some pretty cool validation, which is shown in Figure 3-7. She had put on her spouse-to-be hat and contacted some real hosts on the real Airbnb. She asked them if they would consider renting their homes out for a wedding event. She even asked how much they might charge. As it turns out, people are already doing this.

Hosts on Airbnb were already bending the system. They were creating pricing packages totally separate from the Airbnb business model and UX, and the responses showed Ena how familiar hosts were with wedding inquiries.

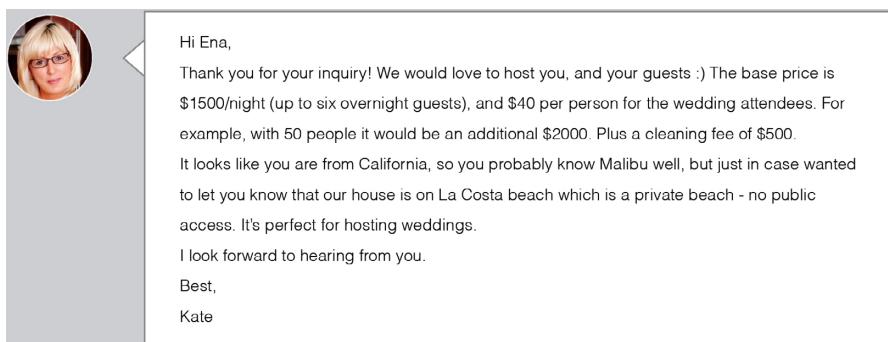


FIGURE 3-7

Example of a positive response from hosts on Airbnb for Ena's inquiry about renting their home for a wedding

STEP 5: REASSESS YOUR INITIAL VALUE PROPOSITION BASED ON WHAT YOU LEARNED

As you can see, conducting validated user research does not need to be costly or time-consuming. For Bita, it cost her one Saturday to validate whether her assumptions were right, which she then compiled into the results shown in Figure 3-8.

Yes, she only talked to 10 people who passed her screener questions, but she found that 9 of them had a huge problem finding an affordable venue. Obviously, her assumption was validated. However, she also gained additional intelligence about how much those people spent on their weddings and how many people they invited. She learned that 70% of her participants had weddings with 175 guests. This affected how she thought about her value proposition because it meant the detail of venue size was actually more important than she originally assumed. It made her question whether there were homes large enough in Los Angeles to accommodate the needs of her target customer segment. It was a reality check.

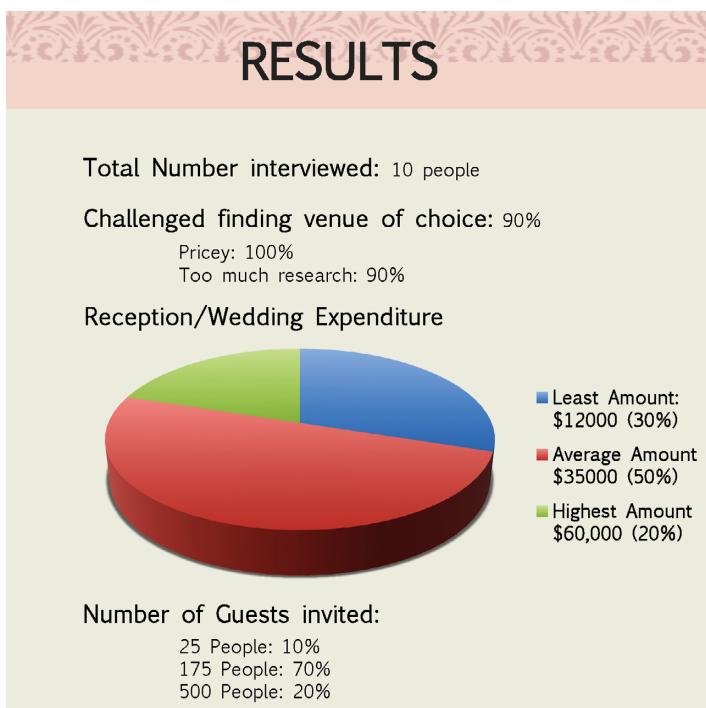


FIGURE 3-8

Bita's customer discovery results

In contrast, Ena’s customer discovery revealed that there is already an existing solution for Airbnb for Weddings, and it was...Airbnb! However, she also learned that Airbnb is not designed to address all the logistical needs faced by the host or spouse-to-be. For example, you can’t deal with other aspects of wedding planning, such as the food, parking, flowers, etc. Yet people (both hosts and spouses-to-be) are currently using Airbnb as a Band-Aid solution because it is a workaround for booking an affordable wedding venue! It’s when you stumble on evidence like this that your “value innovation” creative juices should start flowing.

Now that we have feedback, you and your team, like Bita and Ena, will have some decisions you need to make, because one of three things should have happened:

- You did not validate all the assumptions from your provisional persona(s). Therefore, you need to pivot on who you think your customers really are. Go back to Step 1.
- You did not validate a common pain point your customers are experiencing. Therefore, you need to pivot on the problem. Go back to Step 2.
- You validated your problem statement and provisional persona(s) and are confident about your solution’s initial value proposition. You can choose to conduct more customer interviews with more participants to further validate your persona or even experiment with other segments. When you are ready, go on to Chapter 4.

Recap

A good business strategy is one centered around the customer. This is why you must validate your presumed customer segment and their unmet needs. By mashing up customer discovery techniques with traditional user research tools such as provisional personas, you now have a cost-efficient way to determine if you are on the right track. Even if you are intimidated by talking to strangers, new to field research, locked in by a requirements document, fighting a looming deadline, or staring at a two-line vision statement, you want to learn as much as you can about your future users before you start building a product. Because doing so is always far better than making an “ASS out of U and Me.”

Conducting Competitive Research

*You were right. I was on the wrong track.
We're deep in the valley, how deep in the gully.
And now in the canyon. Out in the yonder.*

—SONIC YOUTH*

NOW THAT YOU HAVE A STRONG POSITIVE SIGNAL FROM ACTUAL REAL-life users, you need to ask, “Why hasn’t this solution been built yet?” Or, as in the case of Bita and Ena after their customer discovery, “Who else is solving this problem now, and how?” I hesitate to say that everything has been done, but pretty much everything has been *attempted*. After all, individuals and companies have been designing products for distribution and consumption on the internet for more than 25 years! Knowing what has worked or failed is crucial to identifying a competitive advantage and defining your business model. So, in this chapter and the next, we will look more deeply into Tenet 1: Business Strategy (Figure 4-1) so that you can develop a framework for making competitive assessments and strategic decisions.

* Sonic Youth, “Death Valley '69,” *Bad Moon Rising* (Iridescence, 1984).



FIGURE 4-1

Tenet 1: Business Strategy

Learning Lessons, the Hard Way

Doing solid investigative competitive research is like peeling an onion. The more layers you peel, the more you reveal. And it might also bring tears to your eyes if you discover that your product vision is not unique. But don't you want to know what it will take to beat the competition sooner rather than later? If you don't know what you don't know, you are at risk of learning the hard way.

Take, for instance, my dear father. In 1976, at the age of 38, he got up the courage to quit his full-time job as the area management supervisor for a popular California restaurant chain. He'd been working for others since he graduated from UCLA with an accounting degree and was eager to be an entrepreneur. His good friend did well for himself by opening several hot dog stands in the Los Angeles area. So, my father was confident that his own management experience would bring him success.

He soon found a hot dog stand for sale next to a carwash in North Hollywood. He watched the operation briefly and saw how very few customers came to the stand even while their cars were being washed. The place was run down, and the owner appeared indifferent to his customers. My father saw an opportunity for turning the stand into a profitable business and bought it immediately.

Figure 4-2 shows how he gave everything a fresh coat of paint, updated the menu, and put up a big sign that said the stand was under “new management.”



FIGURE 4-2

Polaroid of Alan Levy in front of his hot dog stand in 1978

On opening day, however, he sold fewer than 10 hot dogs. Worse, cockroaches crept across the serving counter, and my dad kept trying to squash them before customers walked up. At the time, my brother and I (then 10 and 12) would hang out at the stand on the weekends, and we could see that my dad didn't know what to make of his new business. Eventually, he realized that despite all his efforts, he couldn't

turn it around. His management expertise did not translate into the emotional stamina and physical strength required to perform the daily operations of the business. So he put it up for sale.

One morning, someone responded to his “Hot Dog Stand for Sale” ad. The man showed up to the stand at noon and introduced himself. He bought a hot dog and then sat down at a table to observe the entire lunch shift. In the first hour, an elderly woman who lived at the nearby senior-citizen home walked up and bought a hot dog. After one bite, she asked for her money back. She said, “It didn’t taste right.”

The man came back the next day and watched another lunch shift. Before he left, my father asked him what he thought of the business.

“To be honest, Alan,” the man replied with a heavy Armenian accent, “you are married to a corpse.”

That comment depressed my father for days. He decided to accept his fate and sold the stand at a significant loss, which was truly tough for my family. But the whole experience taught my father (and us kids) lessons that were huge.

Lessons Learned

- Before you start a new business, learn everything you can about how it works. Don’t let your enthusiasm dull your logic.
 - Investigate your competition. What are they doing right? What are they doing wrong? Why should customers come to you?
 - And when you can’t figure out how to make it work, admit defeat. It’s okay to fail! But move on. Or pivot!
-

Looking at the Competition to Uncover Nuggets

“Strategy is not just about having an intention. An intention to be the industry leader may be a start, but we only get to strategy by understanding the difficulties of achieving this goal in a particular context,” asserts J.-C. Spender.* To be competitive, you need to know what’s out there, what has worked, and what has not worked. Otherwise, how would you know if the product you envision will be entering into a red ocean versus a blue ocean, as discussed in Chapter 2? To increase your odds of survival, you want to study how the current digital solutions address the needs of your target customers. You may discover that your product could become a category creator through market positioning.

That’s why conducting research on the competition is a crucial component of business strategy. You want firsthand knowledge of the good and bad user experiences and business models provided by your rivals. If done thoroughly, the research can provide a treasure trove of insight into emerging industry trends, nascent markets, and outdated manifestations of mental models. It will also help your team learn about standard design conventions and noteworthy marketing tactics. To connect the dots, though, you first need to collect them.

Assessing how your current or future product compares to others is a complex, daunting, and continuous task. But you don’t have to hire a pricey market research analyst if you are open to a DIY approach. As business strategy maverick and book author Henry Mintzberg says, “Real strategists get their hands dirty digging for ideas, and real strategies are built from the nuggets they uncover.”†

I have found that the most efficient way to do a comprehensive competitive analysis is to collect all of the data in a matrix. It’s a straightforward way to do a cross-comparison. By using a spreadsheet, I can methodically capture information and avoid missing important data points. The matrix helps keep track of everything that needs to be compared. When it’s complete, I can rationalize my position with a cogent understanding of numerous qualitative and quantitative data points.

* J.-C. Spender, *Business Strategy: Managing Uncertainty, Opportunity, and Enterprise* (Oxford: Oxford University Press, 2015).

† Henry Mintzberg, “The Fall and Rise of Strategic Planning,” *Harvard Business Review*, January 1994, <https://oreil.ly/1mcVX>.

COMPETITIVE ANALYSIS MATRIX						Revenue Streams
	URL of Website or App Store Location	Login Credentials	Value Proposition	Year Founded	Funding Rounds	Revenue Streams
DIRECT COMPETITORS						
Wedding Spot	https://www.wedding-spot.com	wonderfulwedding2020@gmail.com password: Wedding2020!	Wedding Spot is an online marketplace that allows wedding planners to search, price, and book wedding venues.	2013	Raised \$3.2M in 2 rounds from 3 lead investors	Venue listing fee/advertising
Here Comes the Guide	https://www.herecomestheguide.com	wonderfulwedding2020@gmail.com password: Wedding2020!	Here Comes the Guide provides nation-wide wedding vendor listings to spouses-to-be.	1989	Fully funded by the founder	Advertising
Wedgewood Weddings	https://www.wedgewoodweddings.com	wonderfulwedding2020@gmail.com password: Wedding2020!	Wedgewood Weddings provides wedding service packages with 40+ partnering venues across the U.S. to spouses-to-be.	1986	Unknown	All-inclusive wedding venue package for customers
INDIRECT COMPETITORS						
The Knot	https://www.theknot.com	wonderfulwedding2020@gmail.com password: Wedding2020!	The Knot is an all-inclusive wedding website providing planning tools and a business platform that connects spouses-to-be with wedding vendors, including wedding venues.	1986	IPO'd in 2005; privatized in 2018 to be owned by Permira Funds and Spectrum Equity, current investors in Wedding Wire. Raised \$19.6M in 3 lead rounds before 4/15/1999 from 3 lead investors	Local advertising (listing subscriptions being paid by local vendor is older than "venue listing fee stream"); National advertising
Wedding Wire	https://www.weddingwire.com	wonderfulwedding2020@gmail.com password: Wedding2020!	WeddingWire is a global marketplace connecting engaged couples with local wedding professionals.	2007	Raised \$81.1M in 5 rounds	Vendor advertising
HitchBird	https://www.hitchbird.com	wonderfulwedding2020@gmail.com password: Wedding2020!	HitchBird is a wedding website providing destination wedding vendor listings in the Asian Pacific region to spouses-to-be around the world.	2015	Raised unknown amount of money in seed round in 2018	Advertising

FIGURE 4-3

Competitive research spreadsheet example

I use Google Sheets because I prefer a free cloud-based tool that is easily accessible to as many people—teammates and stakeholders—as possible. It's important that everyone has access to the most up-to-date research, and this way I avoid blank stares during important discussions.

Figure 4-3 depicts a partial example of a spreadsheet that I created using Google Sheets specifically for conducting competitive research. It includes research that was conducted in 2020 on the Airbnb for Weddings value proposition for reference.

As I mentioned in the Preface, you can access the UX Strategy Toolkit, which contains the Competitive Analysis Matrix tool, at <https://userexperiencestrategy.com>.

Your ultimate goal is to devise a solution that creates a competitive advantage. The research your team does in the tool will force everyone to look across the competitive landscape with an eye for excellence or mediocrity in how the competitors deliver their user experiences. The devil *is* in the details, and it's in those details that Tenet 2, Value Innovation, can be conceived. (See Chapter 6 for more on this.)

You can only conduct a solid analysis if you have solid research as the input. This sounds obvious, but it's amazing how many quick decisions are made after only a cursory examination of the marketplace. As strategists, we need to help our clients and stakeholders filter the competitive research into bite-size, actionable takeaways in which everyone can make smart, analytical decisions. Let me break it down slowly. At the end of this adventure, you will see that *knowledge is power*.

Conducting UX-Focused Competitive Research

There are many benefits to having your competitive research conducted by the UX lead or a UX team member:

UX innovation

UX designers instinctively think about how easy it is for someone to accomplish a task. They can spot an opportunity for improvement by changing an interaction design pattern. Think back to our Tinder example and how a simple swipe left or right to make a decision became the heart of the product.

Efficiency and domain expertise

It's faster to have the same UX designer research and build the product. They will see which interaction design practices (like "onboarding") work the best by examining the competition. They will also become familiar with the subject matter and domain (i.e., healthcare or mobility) as they explore taxonomies, content, and business models.

Tag team

UX leads can focus on the analysis while delegating the labor-intensive research to junior team members. The junior members will benefit from the hands-on work and mentorship. Overall, the entire UX team will become familiar with the competitive landscape.

Understanding the Meaning of Competition

As digital product makers, the marketplace we serve and compete in is the internet. It's not only our marketplace; it's our distribution medium. You and your team create for, deliver products to, interact with, and acquire more users than any other medium through this digital highway. This is why the internet is *far* more powerful than traditional mediums like television and radio.

Your marketplace contains all of your existing and future customers. They can be either paying or nonpaying customers. They can be of almost any age range so long as they can interact or engage with the product digitally to accomplish their task. If a company in this space offers a product that is similar or even similar-ish to yours, they are your competitors. They have the ability to cut into your share of the potential four-plus billion people using the internet.

However, not all of these four-plus billion people are necessarily your customers. (If you think they are, please reread Chapter 3 right now.) If you realize this from the start, it will become easier to pinpoint your competition.

TYPES OF COMPETITORS

A competitor is a person, team, or company that shares your goals and is fighting for the same things that your product team wants. Even if you are entering a new market, there might be no obvious competition. Still, the chances are that there is a niche market being defined by either internet giants or nascent startups that you have yet to consider.

Direct competitors are companies that offer the same or a very similar value proposition to your current or future customers. For instance, a direct competitor to Uber is Lyft. When both companies started, they solved the same problem for the same customer with essentially an identical solution. Taxi services are also a direct competitor to Uber even if they have a different business model than ride-hailing.

The initial value proposition of Airbnb for Weddings that we defined in Chapter 3 is an online marketplace for listing and renting private properties as wedding venues. In my research, I found that the biggest direct competitor was a site called Wedding Spot, shown in Figure 4-4.

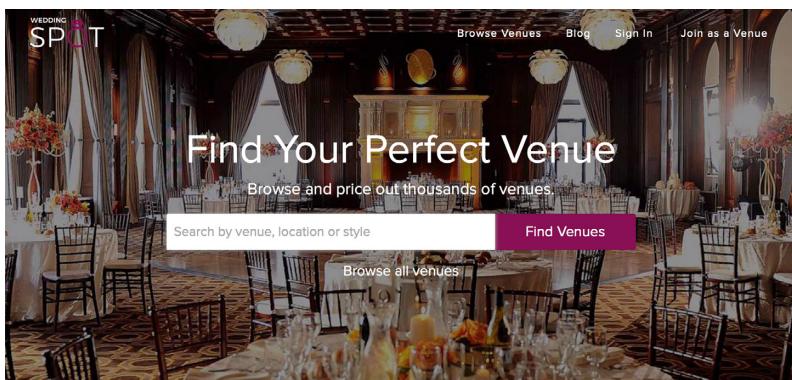


FIGURE 4-4

Direct competitor's website: Wedding Spot

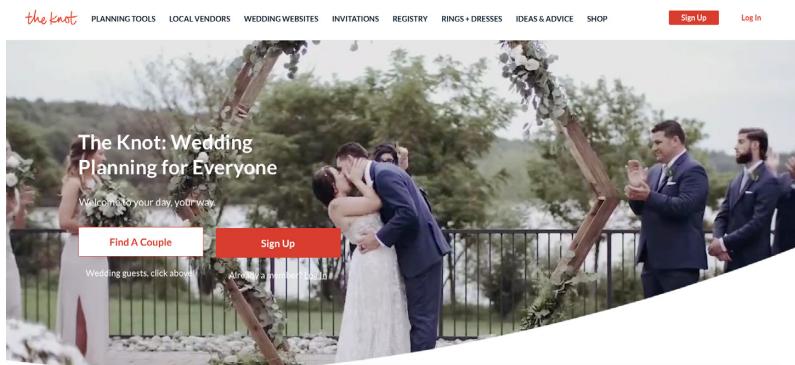


FIGURE 4-5

Indirect competitor's website: The Knot

The reason they are the biggest direct competitor is that they are 100% focused on helping spouses-to-be find a wedding venue, and they have the most wedding venues (currently 730) listed in Los Angeles. They also offered some great features, including side-by-side venue comparison and transparent pricing, which no other competitors offered.

Indirect competitors offer a different value proposition, but somehow their solution may satisfy the needs of your target customer. For instance, an indirect competitor to Uber is public transportation. It solves the problem for the customer but with a different solution.

The biggest indirect competitor to Airbnb for Weddings is The Knot, shown in Figure 4-5, which provides comprehensive wedding resources and planning tools. This includes a large collection of wedding venues to search through and book. However, they are being categorized as an indirect competitor because wedding venue listings are just a part of their solution.

Indirect competitors may only solve part of the problem for a customer segment or conversely have a much larger value proposition. Common indirect competitors tend to be horizontal marketplaces and aggregators such as Amazon, Craigslist, and Yelp. That is because they provide numerous solutions for numerous customer segments. Amazon can be the most menacing indirect competitor to any ecommerce company because they're the go-to store for online shopping. Be careful in thinking that Amazon is a direct competitor just because your target customers are currently using it for the solution. Instead, ask yourself, Would

Amazon consider my business to be a direct competitor? Probably not. A direct competitor for Amazon's marketplace would be another horizontal marketplace, such as Walmart.

It may also be helpful to look at adjacent markets to find indirect competitors. These competitors could potentially expand into your market (i.e., Netflix tackling streaming and content production or Uber doing food delivery).

If you're not sure whether a competitor is direct or indirect, wait until you've completed the research. In Chapter 5, you'll learn how to analyze competitors and have a chance to put them into the right category.

But no matter, whether the competition is direct or indirect, the internet is an intense marketplace. Make sure that you consider *all* of your competitors before you make decisions about what your research is telling you. (That also happens in Chapter 5.) The reality is that people often use products or combinations of products in ways that are unexpected by the product makers, and it is your task to uncover them. (Remember what Ena discovered about hosts for wedding venues on Airbnb!)

HOW TO FIND YOUR COMPETITORS

There are many ways to learn who your direct and indirect competitors are. During customer discovery or other research, users might share the names of products they're using. During stakeholder interviews, the client, investors, and other product owners will probably drop the names of competitive products of which they are aware. Or, they might mention a product they admire and want to emulate. That's why it's crucial to keep track of competitor names so that you don't forget them from the very beginning of your research. Start making a list of potential competitors somewhere readily accessible like a note-taking app, a Google doc, or the Competitive Analysis Matrix.

Fortunately, we also live in a time where there are hundreds of web tools for doing effective competitive research: Google, Bing, Yahoo, and more. The algorithms behind our search tools are very complex, and that means even the order of results can tell us something when we begin to gather data.

To find my competitors, I first get into the headspace of my targeted user segment. In the case of Airbnb for Weddings, that means I want to think about how my spouse-to-be might approach the task of finding a wedding venue through keywords. As I discover useful keyword combinations, I store them in the Competitive Analysis Matrix tool in the designated cells found below the competitor rows.

Some keyword examples are:

- Venue booking
- Wedding venues
- Wedding venues near me
- Wedding apps
- Wedding planning apps
- Wedding halls

But that's only my starting point. I typically employ the following techniques to quickly build a comprehensive list of popular keywords, which then lead me to a wider range of competitors to consider.

1. Using the keywords I brainstorm as a starting point, I'll type one of them into Google Search. As you type the keyword, Google Predictive Search displays the most popular permutations of that keyword, as seen in Figure 4-6. I will type in different permutations of keywords until I have a well-balanced list. If you have a key phrase instead of a word, always put it in quotes. Be sure to try the keyword "app" or "apps" even if your value proposition is not for an app so you don't overlook any mobile contenders.

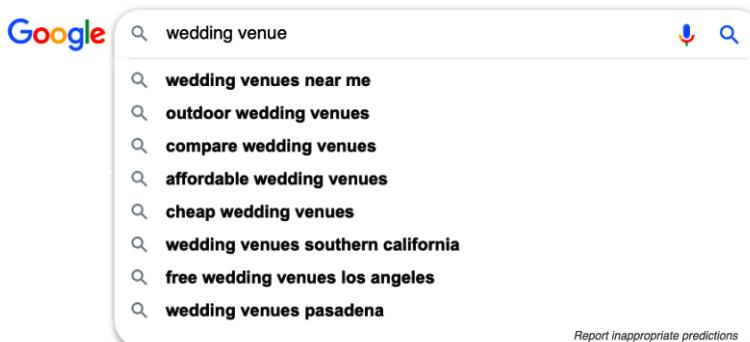


FIGURE 4-6

Google's suggested alternative search terms based on keyword input

2. You should also look at the bottom of the Google search results page for the “searches related to...” suggestions, as illustrated in Figure 4-7.

Searches related to "wedding venues"

wedding venues malibu	wedding venues pasadena
wedding venues in california	wedding venues I southern california
wedding venues near me	cheap wedding venues
outdoor wedding venues	affordable wedding venues



FIGURE 4-7

The related search terms suggestions displayed at the bottom of a Google search query

3. To make sure I haven’t left any important search terms on the table, I jump over to the free-to-use “Keyword Planner” feature within Google Ads, as illustrated in Figure 4-8. It is typically used to discover new words for planning a pay-per-click (PPC) marketing campaign.

A screenshot of the Google Ads Keyword Planner tool. The interface is divided into several sections. At the top, there's a header "Discover new keywords" with two buttons: "START WITH KEYWORDS" (which is underlined in blue, indicating it's the active tab) and "START WITH A WEBSITE". Below this, there's a search bar containing the query "'wedding venues'" with a clear button and an option to "Add another keyword". There are dropdown menus for "English (default)" and "United States". In the middle section, there's a field for "Enter products or services closely related to your business" with a search icon and a note about specificity. Another section allows filtering by domain with a URL input field and a note about filtering out non-offered brands. At the bottom, there's a large blue "GET RESULTS" button.

FIGURE 4-8

The Google Ads Keyword Planner tool for accessing Google data about the popularity of search terms

Broaden your search:						
<input type="button"/> outdoor event venues						
<input type="button"/> event venues						
<input type="button"/> private function venues						
	<input type="checkbox"/> Keyword (by relevance) ↓	Avg. monthly searches	Competition	Ad impression share	Top of page bid (low range)	Top of page bid (high range)
Keywords you provided						
<input type="checkbox"/> wedding venues		100K - 1M	Low	-	\$0.90	\$3.50
Keyword ideas						
<input type="checkbox"/> wedding venues near me		100K - 1M	Low	-	\$1.03	\$3.68
<input type="checkbox"/> venues near me		10K - 100K	Low	-	\$0.91	\$4.50
<input type="checkbox"/> cheap wedding venues		10K - 100K	Medium	-	\$0.85	\$2.99
<input type="checkbox"/> outdoor wedding venues		10K - 100K	Low	-	\$0.95	\$3.00
<input type="checkbox"/> wedding reception venues		1K - 10K	Low	-	\$1.01	\$3.91
<input type="checkbox"/> small wedding venues		1K - 10K	Low	-	\$0.97	\$4.50

FIGURE 4-9

A partial keyword result set screen that was generated by the Google Ads “Discover new keywords” function

If you look at Figure 4-9, you'll see that Google generated other relevant phrases to explore.

Now that I'm armed with dozens of keyword ideas (see Figure 4-10), I can do a more extensive deep dive with my Google search queries.

Keyword Phrases Below	Keyword Phrases Below
wedding venues	wedding halls
wedding venue near me	venue booking
outdoor wedding venues	Veranstaltungsorte für Hochzeiten
affordable wedding venues	venues near me
wedding venues southern california	wedding reception venues
free wedding venues	Airbnb for Weddings
wedding venue websites	small wedding venues
wedding planning apps	Keyword phrase or word 18
wedding apps	Keyword phrase or word 19
cheap wedding venues	Keyword phrase or word 20

FIGURE 4-10

The Airbnb for Wedding's keyword phrases stored in the Competitive Analysis Matrix tool

4. I might also bring out the big guns by using Crunchbase Pro. Crunchbase is a platform for finding business information about private and public companies, and the pro version gives you access to advanced tools and additional data. As you can see in Figure 4-11, this is the list of competitors I found after searching for "Wedding Venues."

Not all the companies displayed may be relevant to my value proposition. So I skim through the list to determine who my true competition is.

5. Don't forget that your customer segment probably exists in other parts of the world, and that means your competition probably does, too. This is especially important to consider if you're entering a "new" market. By using Google's advanced search tools for region and language filters, you will probably be able to find products in other countries and languages. If you aren't having much luck, then try this workaround I did for Airbnb for Weddings. Using Google Translate, I translated "wedding venues" into other languages like German ("Veranstaltungsorte für Hochzeiten"). Armed with that keyword phrase, I could then perform a basic Google search or Step 1 in this list to find more competitors.

crunchbase pro Search Crunchbase

Search Companies

Companies People Investors Funding Rounds Acquisitions Schools Events Hubs Saved

UPGRADE NOW SAVE SEARCH

EDIT VIEW EXPORT TO CSV CONNECT TO CRM

Filters CLEAR (2) APPLY PREFERENCES

Overview (2) Description Keywords E.g.: RegTech, Account-based venue X

Headquarters Location Industry E.g.: Japan, Boston, Europe

Number of Employees Founded 1 10001+

	Organization Name	Description	Headquarters Location	1≤ CB Rank (Com...)	Industries
<input type="checkbox"/>	1. Hunlili	Hunlili is a wedding planner application that helps couples in China with the planning and sharing of ...	Hangzhou, Zhejiang, China	18,195	Apps, Event Management, Wedding...
<input type="checkbox"/>	2. Wedding Spot	Wedding Spot is an online marketplace that allows users to search, price, and book wedding venues.	San Francisco, California, United States	36,623	Events, Internet, Location Based S...
<input type="checkbox"/>	3. EVENTup	EVENTup is the #1 destination to find and book venues.	Chicago, Illinois, United States	45,954	Event Management, Events, Marke...
<input type="checkbox"/>	4. Arrow Park	Arrow Park is a provider of wedding and event venue intended to provide a scenic, noncommercial, and ...	Monroe Township, New Jersey, Uni...	76,712	Event Management, Events, Weddi...
<input type="checkbox"/>	5. Broom	Fintech startup focused on making dream weddings affordable or more accessible	Boston, Massachusetts, United Sta...	128,039	Consumer Lending, Credit, E-Com...
<input type="checkbox"/>	6. The Hitch	The Hitch is a marketplace for discovering and booking wedding venues.	Brooklyn, New York, United States	129,296	Business Intelligence, Content Dis...
<input type="checkbox"/>	7. Mayflower Venues	Mayflower Venues finds and customizes unique spaces like farms, fields, orchards and beaches to ...	Boston, Massachusetts, United Sta...	145,959	Event Management, Online Portals,...
<input type="checkbox"/>	8. Canvas	Canvas is a simple and easy to use platform which takes away the hassle of finding the perfect venue for ...	London, England, United Kingdom	184,734	Event Management, Events, Music ...
<input type="checkbox"/>	9. Funky Token Inc.	SaaS, Big Data, Blockchain, Hospitality, Consumer, Bar & Tavern, Events, App, green technology, clean ...	Calgary, Alberta, Canada	394,207	Analytics, Apps, Blockchain, Brewi...
<input type="checkbox"/>	10. OldMill	OldMill provides picturesque settings for events, meetings, dining, wedding venue and for outdoor ...	Toronto, Ontario, Canada	432,107	Events, Hospitality, Outdoors, Wed...

FIGURE 4-11
Crunchbase
 Pro's result set
 screen after
 searching
 organizations
 in the wedding
 industry

A good search result will often yield more than potential competitor websites on the search page, too. It will lead you to media platforms like Medium posts or niche blogs in which you can find “Top 10” or “Best of” articles from experts. These articles are another great jumping-off point to find competitors. In addition, don’t limit yourself to the first page of results. Look through at least five pages (the top 50 results) and see what treasures might be buried.

Ideally, you want to be as quick and precise as possible when scanning your results. What sets a professional web researcher apart from an amateur is how they can determine if the product matches their criteria. Don’t be lazy. Be systematic and review all the links to ensure that you don’t miss anything.

NARROWING DOWN YOUR COMPETITION

Now you should have a massive list of competitors. When I finished up all my search term permutations for Airbnb for Weddings, I probably had over 40, but that didn’t mean all of them were relevant to my value proposition. So now it is time to start pruning down that list. Go back through each competitor. Click through to the landing page or screen and examine it. Read the About pages. Scan products. You want to determine if it matches your value proposition in any way. If it does, keep the competitor on your list. If it doesn’t, then remove it.

If you have truly hit a blue ocean and there are only a handful of competitors in your market, shoot for identifying the top five direct and indirect competitors. If you haven’t, then try to build out a diverse list of your competition. You want to get a panoramic view of all the different products in the space.

Researching All of the Competitive Data Points

Now we have a list of competitors, and that means we can start gathering the rest of our data. If you haven’t already, go ahead and open the Competitive Analysis Matrix tool from the UX Strategy Toolkit. Figure 4-12 shows a blank version of the tool.

If you look at the example, you’ll see that rows represent competitors, while columns represent competitor attributes. (See Figure 4-13.) The rightmost column is the analysis column, “SWOT Analysis from the Competitor’s Perspective,” which you can ignore until Chapter 5, after you collect all your research.

COMPETITIVE ANALYSIS MATRIX			
Your Value Prop Goes Here	URL of Website or App Store Location	Login Credentials	Value Proposition
DIRECT COMPETITORS			
Competitor Name 1			
Competitor Name 2			
Competitor Name 3			
Competitor Name 4			
Competitor Name 5			
add more rows if needed			
INDIRECT COMPETITORS			
Competitor Name 1			
Competitor Name 2			
Competitor Name 3			
Competitor Name 4			
Competitor Name 5			
add more rows if needed			

FIGURE 4-12

Competitive Analysis Matrix tool (partial view)

URL of Website or App Store Location	Login Credentials	Value Proposition	Year Founded	Funding Rounds	Revenue Streams
Monthly Traffic and Ranking or Mobile App Downloads	Number of Listings, Items, Users, or Posts		Primary Categories	Social Platforms	
Content Types	Personalization Features	Community or UGC Features	Competitive Advantage and/or Key Features		Region
Heuristic Evaluation	Customer Reviews	General Notes or Recent News	Notes to Self or the Team	SWOT Analysis from the Competitor's Perspective	

FIGURE 4-13

Horizontal (x-axis): Attributes go across the columns (shown here stacked in four rows to fit on the page)

We're going to attack each row, evaluating each competitor based on a range of market and UX attributes. I will explain the attributes that need to be captured in each column. Not all of the attributes are applicable or relevant to all digital products. Just delete the ones that don't apply to your value proposition or product and add any missing attributes that do. What is crucial is that the pros and cons of the UX and business models are clearly evaluated.

COMPETITOR NAME

If you have not already done so, plunk your competitor list into the left-most column of the y-axis below the cell where you enter your value proposition, as depicted in Figure 4-14. Take a little time to organize your competitors into direct and indirect competitors. But be aware that

as you research, your perception of whether a competitor is direct or indirect might shift, especially if you vacillate on your value proposition. The list will eventually need to be reorganized, and I go over that in Chapter 5, when you start your analysis. For the time being, let's just focus on correctly capturing the right data points.

Airbnb for Weddings is an online marketplace for listing and renting private properties as wedding venues
DIRECT COMPETITORS
Wedding Spot
Here Comes the Guide
Wedgewood Weddings
INDIRECT COMPETITORS
The Knot
Wedding Wire
HitchBird
Airbnb
Yelp (can search wedding-related keywords)
WebShed
Peerspace (has wedding option)
Splacer (has wedding reception option)
VenueBook

FIGURE 4-14

Vertical (y-axis): Your value proposition and competitors are listed down the rows

Okay, now take a deep breath because we are about to jump into the labor-intensive part of the process. Pace yourself so you can transcribe data quickly and thoroughly. Research can be time-consuming; so when you go down the rabbit hole, be sure to come up for air.

For your first pass, spend up to an hour filling out as many cells as possible in each row. Set a timer for 30 minutes to give yourself a reality check at the halfway point. Keep your documented research brief and to the point. This way, if you or anybody needs to refer back to the spreadsheet, it won't require scanning excess or unrelated information. Also, try to keep an open mind while doing this. The only bias you should have during this process is determining whether or not the product is actually a competitor.

URL OF WEBSITE OR APP STORE LOCATION

This is where you put the primary online location that customers use to access the product. For websites and platforms, it will be the website address as depicted in Figure 4-15. For multiplatform products, you can list website URLs, links to app-store preview pages, and so on. You want to make the information easy for your team to reference regardless of what device everyone has. Here are sample links to the Waze app listing for Apple and Android:

Apple

[https://apps.apple.com/us/app/waze-navigation-live-traffic/
id323229106](https://apps.apple.com/us/app/waze-navigation-live-traffic/id323229106)

Android

<https://play.google.com/store/apps/details?id=com.waze&hl=en>

If a product is a native mobile app with a nonessential desktop counterpart used only for marketing or support, it's not crucial to list both platforms. Be sure to hyperlink the URL so you can easily access the sites from the spreadsheet.

If you find that the competitor's website and mobile app are both crucial to the customer experience of the product, be certain to address both of them as you continue your evaluation. It might be helpful for the sake of clarity to list both in separate rows so that you can cleanly evaluate each.

URL of Website or App Store Location
https://www.wedding-spot.com

FIGURE 4-15

Example of website URL for Wedding Spot

LOGIN CREDENTIALS

To beat your competitors, you need to know exactly what they are doing. The best way to learn about your competitor's experience and/or sales funnel is by becoming a user yourself. That's right! You want to create an account or download the app. The column shown in Figure 4-16 is where you keep track of that information.

Login Credentials
wonderfulwedding2020@gmail.com password: Wedding2020!

FIGURE 4-16

Example login credentials

The benefit of tracking the access information is that it saves time for you and the rest of the team. They won't have to create and pseudo-personalize a profile, too. This is especially useful if you're researching a two-sided market in which you need two types of accounts, i.e., buyer and seller. Don't be sophomoric when creating all of these new accounts, and be very cautious about usernames, passwords, and the personal information you choose to share. In some cases creating fake accounts for testing software can also be problematic depending on the Terms of Services you agreed to when you signed up for your internet provider, the website or app you want to check out, or even the company for which you work. For more on this, check the SCIP Code of Ethics.*

In some enterprise environments, and for many B2B products, you can only access the product or get a demonstration by providing your contact information and setting up a sales call. Some corporations forbid their employees from doing this kind of investigative research, or they require you to go through extensive legal or auditing processes. One possible workaround is to scour YouTube and Vimeo for publicly available demonstrations, tutorials, and product reviews. If you need more information than what you can find online, you may need to bring in an outside agency.

VALUE PROPOSITION

As explained in Chapter 3, the value proposition is what a company promises to deliver to the customer; it's the high-level description of the product or business. So it will be very useful to your team to know how your competitors might explain it to a customer or investor. It is in this description that it is ideal to include the primary customer segment(s).

* “The SCIP Code of Ethics,” SCIP, <https://oreil.ly/QpTa2>.

Value Proposition	Value Proposition
<p>Wedding Spot is an online marketplace that allows wedding planners to search, price, and book wedding venues.</p>	<p>Peerspace is an online marketplace that connects professionals and businesses to creative spaces.</p> <p>Peerspace has a wedding sub-category for spouses-to-be to find non-conventional venues.</p>

FIGURE 4-17

Value propositions descriptions for a direct and indirect competitor

You can often find this information by looking in the following places:

“About” or “About Us” section

The value proposition is often written here by the competitor.

Crunchbase (and sometimes Owler)

Both the “Company Overview” and “Detailed Description” section have company descriptions. This is a good place to look at startups in particular.

iTunes or Google Play app stores

The first two lines of the “description” are generally what you need.

Social networks such as LinkedIn, Facebook, Pinterest, Twitter, and YouTube

These sometimes provide information about the value proposition. These are particularly helpful when you are looking at more established companies.

Online annual report (for publicly traded companies and nonprofits)

An annual report is a company’s yearly report to shareholders, documenting its activities and finances in the previous financial year. It typically has a description of the company near the beginning. Simply Google the competitor’s name and “Annual Report” to find it. Or look it up on EDGAR (Electronic Data Gathering, Analysis, and Retrieval).*

* James Chen, “Electronic Data Gathering, Analysis and Retrieval (EDGAR),” *Investopedia*, July 31, 2020, <https://oreil.ly/rzrHv>.

Pseudo-User Quick Tips

- Create one global username and password for all the products in your audit. It makes it a lot easier to remember and distribute to your team. Include a capital letter and number in your password because that criterion will be required by some of the products.
 - Don't ever use personal information such as your kid's birthday, your passwords, or profanity. You will potentially share this information with clients or colleagues.
 - Do not use any single sign-on options like your personal Facebook or any social network account ever. If you plan to create anonymous profiles on social networking platforms, be aware that you may be violating their terms of service, and the account might be deleted at any moment.
 - If it is a transactional website you are researching, purchase something. If it is an app that you must purchase (versus a free one), pay for it. Don't be frugal! It's usually only a few dollars here and there. This is another reason why having one user account for your entire team is worth the financial investment.
 - Collect competitor information in a way that is secure, legal, and ethical.* More and more online companies and services are tightening up their security, requiring two-factor authentication and more. Check out the latest information security blogs and books like *Open Source Intelligence Techniques*† by Michael Bazzell for more information on how to securely collect competitor information using tools like virtual machines.
-

* "The Ethics of Competitive Intelligence: The Fine Line Between CI and Corporate Espionage," LAC Group, September 23, 2019, <https://oreil.ly/F36KF>.

† Michael Bazzell, *Open Source Intelligence Techniques: Resources for Searching and Analyzing Online Information*, 7th ed. (Independently published, 2019).

Figure 4-17 demonstrates the value propositions I captured for a direct competitor, Wedding Spot, and an indirect competitor, Peerspace. Because I wanted to be contextually precise and concise, I didn't necessarily cut and paste Wedding Spot's entire value proposition and/or statement into the column. Instead, I distilled it to the essential components of the value proposition, including the relevant customer segments they serve. Regarding indirect competitors like Peerspace, I made sure to include the aspect of the value proposition that pertains to mine. Otherwise, it might not be obvious to my collaborators or stakeholders exactly why less-obvious competitors are included in the audit.

Year founded

What year was this company founded or the product launched (Figure 4-18)? You should be able to find this in the same place you found the value proposition, like the About Us section, Crunchbase, or so on. It's useful information to have when you do the analysis because you can see what players (products and/or services) are new to the market and who's been around for a while. In this example from The Knot, we can see that they have been around since the mid-90s. This indicates that they weathered the storm of the dot-com bubble bust and can be considered "first to market" with their particular solution.

Year Founded
1996

FIGURE 4-18

Example of year founded for The Knot

Funding rounds

A funding round is a discrete round of investment by which a business or other enterprise raises money to fund operations, expansion, capital projects, acquisitions, or some other business purpose.* (See Figure 4-19.) This information is important because competitors with a lot of funding have a competitive advantage. Publicly held companies can raise capital by creating and selling shares. Startups may be self-funded through friends, family, and/or credit cards. If you have any

* "Securities Offering," Wikipedia, <https://oreil.ly/aKEB6>.

doubts or notice any discrepancies about the funding and/or merger and acquisitions of a competitor, do a Google search for a recent press release by the company. Other places to find this information is at Crunchbase and/or the competitor's website.



FIGURE 4-19

Example of funding rounds and amount(s) for Wedding Spot

Revenue streams

A revenue stream is how the product brings in money, and if you'll recall, it's an important component of a business model. (See Chapter 2.) It could be via a transaction fee, advertising, monthly fees, membership tiers, paid features, Software as a Service (SaaS), selling user data and trends to other companies, etc. The company might even have no revenue stream because it's counting on a buyout from a larger company (e.g., Facebook, Amazon, Apple, Netflix, and Google) before their funding runs out. If it isn't clear, there are always clues. For example, is there advertising on the website? See if you can find an "Advertise with Us" link. Annual reports also contain this type of information.

As Figure 4-20 depicts, I discovered that The Knot had numerous revenue streams, but vendors who pay a subscription fee to appear on listings was their primary one.

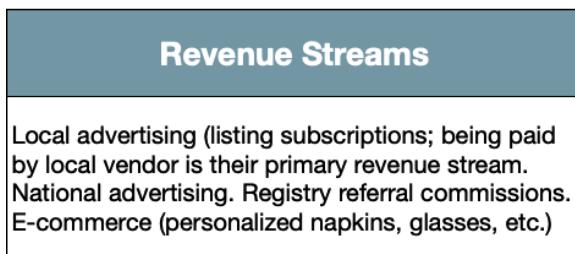


FIGURE 4-20

Example of revenue streams for The Knot

Monthly website traffic/app downloads

This is a measurable and quantifiable attribute for benchmarking how much monthly traffic goes to a competitor's website or app. SimilarWeb (www.similarweb.com) is the best free current source. It triangulates a growing dataset of hundreds of thousands of websites and apps that share their directly measured data with it. While SimilarWeb doesn't show unique monthly views, it does provide other insights like average visit duration on the site and from which countries the visitors are coming. Its rankings category is a useful insight because it gives you a good indication of a website's traffic footprint globally, domestically, and within its category. You can see in the example provided in Figure 4-21 that The Knot gets 11.5 million visitors per month and is ranked #1 in the category of weddings. The next closest direct competitor, Wedding Wire, only pulls in 4.94 million visitors a month and is affiliated with The Knot anyway.

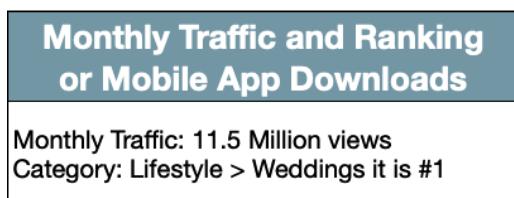


FIGURE 4-21

Example of monthly traffic for The Knot

For more precise and extensive analytics, you'll need access to services such as Comscore, Alexa Internet, Ahrefs, Semrush, or Quantcast through paid subscriptions.

For native mobile apps, you can currently get the last month's downloads without an account using Sensor Tower. Using a Crunchbase Pro trial for a week, you can also find mobile app metrics such as previous month's downloads and monthly growth. For more extensive data, you can get a paid subscription to App Annie or Sensor Tower, although they are quite expensive. Chances are, there may be other market intelligence companies springing up that will make this data accessible in the future.

Number of listings, items, users, etc.

Sometimes this cell is optional because this information is unobtainable or simply not appropriate for your value proposition. But this cell is important because it represents the core assets—the things that make a product useful. This includes listings to sublet on Airbnb, items for purchase on Amazon or eBay, user profiles to match with on Tinder, and even wedding venues to rent on The Knot. If it's an indirect competitor, focus on only the listings that are relevant to your product (i.e., the number of black T-shirts on Amazon, not the total number of items on Amazon). This quantifiable metric is a fantastic point of comparison for estimating market penetration. It will help you benchmark if your competitors are offering enough or not enough of them and if there is an opportunity for your product within the space.

The trick to finding this number, as shown in Figure 4-22, is to be specific with your criteria. For Airbnb for Weddings research, I focused on the number of wedding venue listings in Los Angeles across all competitors because it was easier for benchmarking (more on that in Chapter 5) and also because my value proposition is using Los Angeles as the starting point city before scaling.

In the case of video-sharing or content-producing sites, you'll want to track how many videos/articles are on the platform. One challenge with obtaining this data point is there are design conventions such as “infinite scroll” that prevent you from easily knowing how many more results could be displayed. But it's worth estimating even if it requires manually clicking to the end of the result set.

Number of Listings, Items, Users, or Posts
Wedding venue listings in 50 states, 729 venues in Los Angeles

FIGURE 4-22

Example of listings for Wedding Spot

Primary categories

If the site is selling products, like Etsy, or offering content, like Netflix, you need to understand how their stuff is bucketed, or categorized, at a high level. The site probably (hopefully) already does this, so check out the global navigation menu. If the category list is small (wedding planning tools, local vendors, wedding-related content, and so on), you can just copy that into your spreadsheet, as illustrated in Figure 4-23.

If the list is long or complex like on Amazon or eBay, the site is probably a *horizontal marketplace*. A horizontal market tries to meet the needs of a wide range of customers by offering products or services across many sectors. This is as opposed to a *vertical marketplace* which targets a single market sector (i.e., electronics). If you're studying a horizontal marketplace, try to ascertain what the most active categories are. Look at what's featured on the home page. What does the site promote as "most popular" or "best selling"? In either case, just include major categories that correlate to you and the competitor's value propositions. Don't include noncontent/category areas such as "About us" or the Help section.

Primary Categories
Wedding planning tools Local vendors Wedding content

FIGURE 4-23

Example of primary categories for The Knot

Social platforms

Is the competitor's brand on Twitter, Facebook, LinkedIn, or other platforms? Most businesses these days have accounts, but they don't fully utilize them. So which are active? And which are inactive? Figure 4-24 shows the types of quantifiable data points you might capture to determine each competitor's social media strategy or lack thereof.

Social Platforms

Instagram: 16.1k followers, 1,511 posts, active daily

Pinterest: 7k followers, 540.4k monthly viewers

Facebook: 55194 followers, active daily

Twitter: 1266 followers, 2-4 posts per week

FIGURE 4-24

Example of social platforms for Wedding Spot

As shown in the example for Wedding Spot in Figure 4-24, we can see how many followers or views they have and how active they are at posting content or promotions that ultimately build awareness and brand loyalty. You can find this information by simply searching the product's name on Twitter, Facebook, Instagram, YouTube, Pinterest, LinkedIn, and any other popular relevant social platform. You can also click through to them via the social media icons displayed on the competitors' sites. Figure 4-24 shows they are quite active on the platforms mentioned but don't have many followers on Twitter.

When you look up their various social media accounts, it's also a good time to follow them. Monitoring their posts will keep you abreast of their latest news. Keep an eye out for popular hashtags used by the direct competitors because these may be the ones that you will be using once your product launches.

Content types

Use this to capture what type of content makes up the bulk of the competitor's site. Is the content predominantly text, photos, or videos? How is the quality? If you've already captured listings, user profiles, and/or detail or item pages, break down the specific content assets in each, like I did in Figure 4-25. Also note if they're easy to scan and/or read. How detailed and informative is the information displayed? Is it consistent? Is there a blog?

Content Types
Vendor listings with photos, description, map, reviews, etc.
Wedding inspiration blog posts categorized by a range of themes; text and photos on the website, hundred of videos on YouTube

FIGURE 4-25

Example of content types for The Knot

Personalization features

Personalization is one of the most crucial aspects of a product to get customers engaged. Personalization features include user profiles, news feeds, favorites, wish lists, saved shopping carts, notifications, recommendations, and so on. These types of features speed up interactions and consequently affect customer satisfaction and how regularly they visit. For some products, the personalization is the value innovation, such as in the case of social networks like Facebook and LinkedIn.

Social and professional networking sites are extremely personalized because they are ostensibly the virtual representation of the real-world user. LinkedIn showcases my user profile, my job experiences, my 1:1 connections, and my sharing activity. They are unique to me and what keeps me hooked on the product. The more time people spend personalizing their product experience, the more engaged they will be.

The quickest way to check out the personalization features is to go to the “My Account” or “My Profile” area for each competitor to see them. As shown in Figure 4-26, the logged-in experience for The Knot includes the dashboard, budgeter, registry, guest list, website, vendor message history, and more.

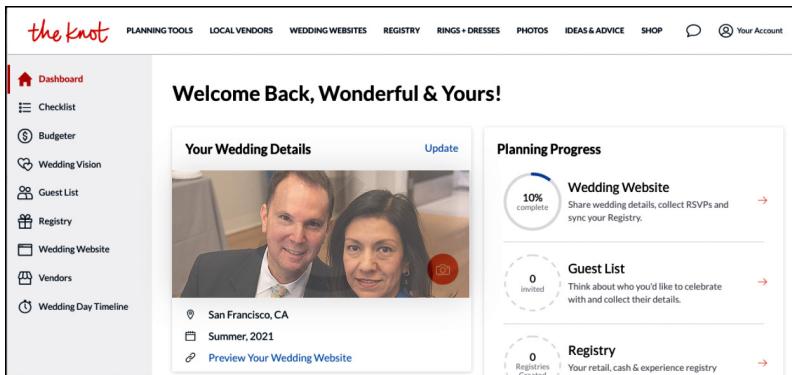


FIGURE 4-26

The Knot's dashboard

This is why The Knot is so successful. The second a newly engaged person creates an account, they are thrust into the wedding planning experience, which essentially hooks them into The Knot's funnel. Figure 4-27 shows a summary of The Knot's personalization features.

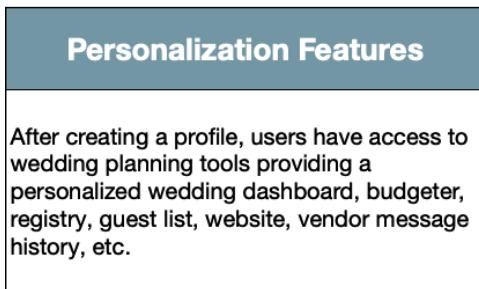


FIGURE 4-27

Example of personalization features for The Knot

User-generated content/crowdsourced data

User-generated content (UGC) is content that is created by the users, and crowdsourced data is created by the user's actions. UGC content can also be a large part of the value innovation. Some products such as Yelp, Waze, eBay, Airbnb, and Tinder would essentially be useless without them. In contrast, platforms like Netflix and Target offer almost no user-generated content apart from editorial content or product ratings.

Look for UGC features such as message boards, forums, user reviews, user ratings, user profiles, user comments, and basically anything a user can post to the platform. For crowdsourced data, consider trending hashtags on Twitter and traffic warnings on Waze.

As shown in Figure 4-28, The Knot offers a discussion forum consisting of several wedding-related boards. It also has poorly maintained customer reviews displayed for all venues. Check to see how many posts there are and if they are recent.

Community/UGC Features
A discussion forum consisting of several wedding-related boards; not well-maintained.
Customer reviews displayed for all venues

FIGURE 4-28

Example of community/UGC features for The Knot

Competitive advantage and/or key features

Differentiators are distinct user experiences and/or business models that make a product unique from its competitors. For Zappos, it made a name for itself by providing an amazing customer experience particularly with their product return policy.

The competitive advantage could also be a combination of capabilities that make the product better, sometimes offering a one-stop shop for customers, such as with The Knot. Or it might be specific to how the online experience enhances the offline experience or vice versa—i.e., pre-online ordering your Starbucks coffee and skipping the line at the brick-and-mortar Starbucks versus lying on a Casper mattress in one of their physical shops and then ordering it online.

Figure out the top two differentiators of each product and list them in this cell, such as depicted in Figure 4-29 for Wedding Spot. Ask yourself questions such as, Which features were successful because the

product was first to market? Can those features be easily replicated? Or is it the algorithm or the dataset (i.e., large diverse user base) that gives it value, or both?

Competitive Advantage and/or Key Features
Wedding Spot is focused on the wedding venue market which allows it to go deeper. Its unique Spot Estimate™ feature can automatically generate an estimate with the wedding information provided by users and venue information provided by the businesses. The side-by-side venue comparison feature is also quite handy.

FIGURE 4-29

Example of key features that give Wedding Spot a competitive advantage

Heuristic evaluation

A heuristic evaluation is a usability inspection method for software that helps identify usability problems in the interface design. You do not have time for an exhaustive assessment right now. Instead, you want to focus on how hard or easy it is to accomplish the particular task that is relevant to the value proposition that you plan to offer. Include any particularly frictionless techniques that may be worth poaching (more on this in Chapter 6).

In the case of The Knot, as shown in Figure 4-30, we are focused on looking at searching and booking wedding venues, which is just one aspect of the platform.

Quickly evaluate whether the site is usable for doing most of what you intend to do with your product. Once done, give it a grade of “A” to “F,” which should be at the front of your brief review. What’s great about this technique is that we are turning qualitative information into a very crucial measurable data point for our teams.

Heuristic Evaluation

GRADE = A

Searching for reception venues on this website is very intuitive. Reception venue is listed under "Local Vendors" as a second-level navigation item. The website automatically detects the geo location and displays nearby cities' listings to expose users to a broader selection. "Backyard" is a filter option, though the returning results are still places like private villas and are more on the expensive side.

FIGURE 4-30

Example of heuristic evaluation for The Knot

Additional Resources for Hardcore Cyber Sleuths

Corporate presentations

Search the company or product name on SlideShare. This portal often has PowerPoints or PDFs of corporate or conference presentations, which may include financial data, new projects, and unreleased products and interfaces.

Google Alerts

Set up Google Alerts of keywords that are highly specific to your value proposition. For Airbnb for Weddings, it could be "Affordable wedding venues in Los Angeles." For instance, I had set up an alert for "Airbnb for Weddings" while I was writing my first edition in 2014, and then I got the alert for the competitor WedShed a couple of years later.

Job postings

Read your competitors' job postings—especially product team and marketing positions—on sites like LinkedIn, CareerBuilder, Glassdoor, and Indeed. It can be useful to see how they articulate their mission, company culture, and job responsibilities.

Paid reports

Find out if somebody at your company has database access to Dun & Bradstreet, Gartner, or Forrester Research. They publish research reports about industries and companies.

Newsletters, press releases, news articles

Search the internet for recent articles in both the mainstream press and technology hubs. Search competitors' websites for recent press releases about their latest developments. Sign up for their newsletters to see examples of their communication.

Social media monitoring tools

There are numerous tools like Hootsuite and Keyhole for monitoring competitors' social media accounts, brand sentiments, keywords, and hashtags all in one place. These tools are not very expensive, and many offer free trials.

The Wayback Machine

Founded by the Internet Archive in 1996, this digital archive of the World Wide Web (<http://web.archive.org>) allows you to go "back in time" and explore past incarnations of websites. It's a great way to research how companies, products, and brands have evolved over time.

Be aware that there are numerous non-kosher ways for, essentially, spying on competitors. I do not recommend these practices as they are unethical.

Customer reviews

This is a summary of the amount (no matter if there are hundreds or thousands) of customer reviews about a product outside of its website. For mobile applications, this is the current number of customer ratings and reviews associated with a competitor's product on the Apple and Google Play stores. As you can see in Figure 4-31, The Knot's mobile app counterpart to its website has very high scores of 4.8 and 4.7, respectively.

But don't stop there. A web search of The Knot yielded numerous complaints about their customer service. It's well worth your time to read what users have been saying recently—both good and bad—about the product because those complaints might be a kernel of an idea for a differentiated customer experience.

There are many review websites for learning about internet site-based competitors including Sitejabber.com and Trustpilot.com. You can sometimes find reviews on Quora, Reddit, or other similar message-board platforms where users reach out to the general public for

opinions or troubleshooting advice. You are looking for the latest recurring customer complaints about a product because those potential pain points are something your team might be able to improve upon. Just remember that customers tend to complain about their bad (versus good) experiences more often because they need a way to vent their frustration. Also, often the reviews are fake and written by competitors or haters. So the best thing to do is read all of them and tease out common complaints. Then see if you can replicate or validate that experience when you go through the product itself. Regardless, it's a great way to discover missed opportunities by competitors.

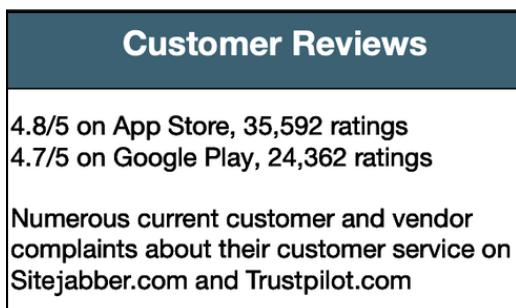


FIGURE 4-31

Example of customer review information for The Knot

General notes or recent news

This column is for miscellaneous information that doesn't fit into the other columns. Feel free to change the name if you have a more useful attribute that needs examining, for example, any news links relevant to your product that you want to track or thoughts on who you think the target customer segments might be. If it's a B2B product, you can record their major clients or customers. Or keep track of any trade or business magazines where they advertise or sponsor articles.

Notes to self or the team

Remember this is a collaborative document. Other people may be reading your research as you fill it out and could provide valuable information. Thus, you could put things in here such as, "This site doesn't work on Safari; not sure if it's me." Or "Hey Steve, do you think we can expense a pair of shoes so we can see how the entire transaction flow works?"

SWOT analysis from competitor's perspective

You get to skip this for now until you finish up all the other competitors. The reason is that you need to have all the data collected in order to accurately compare the competitors to one other. Chapter 5 covers how to do the analysis section.

One last note

Often product teams and stakeholders don't keep an eye on the market after they've moved on from the research process. However, this is a mistake because the internet is a fast-moving target. The competitive landscape is always shifting; consequently, competitive research will never be final. One competitor might tank, but two others will pop up. It's like playing whack-a-mole. For instance, I did the competitive research for the Airbnb for Weddings Platform in 2020. I'm sure if you look at the landscape after 2022+, it might be very different. That's why you and your team always need to be on your toes, agile, and ready to scrutinize your competitor's newest ideas and immediately see how they might affect your product vision.

Recap

Numerous product iterations and extensive customer interviews do not guarantee a value-creating product. To build something unique, you cannot ignore your competition. In this chapter, I discussed how to conduct competitive research to learn about the marketplace. You learned how to identify direct and indirect competitors. You relentlessly searched the internet, capturing a range of qualitative and quantitative data points to help you understand what kind of marketplace your product might be entering. Now, it's time to analyze the data and extract meaningful intelligence that will inform the UX design and the business model. That might sound complicated, but don't panic. Just move on to Chapter 5.

Analyzing the Competition

*[Analysis is] the skilled application of scientific and non-scientific methods and processes by which individuals interpret data or information to produce insightful intelligence findings and actionable recommendations for decision makers.**

—BABETTE BENSOUSSAN AND CRAIG FLEISHER,
BUSINESS AND COMPETITIVE ANALYSIS

AFTER DOING A THOROUGH INVESTIGATION OF THE MARKETPLACE, IT'S time to pull out of the micro and into the macro. In this chapter, I'm going to show you how to apply systematic techniques for extracting key findings from all the research you conducted in Chapter 4. By the end of this chapter, you will understand how to perform competitive benchmarking, identify industry trends, and unearth business models you may not have considered. My goal is to prepare you to take a stance on the viability of your product in the marketplace so that you can make recommendations about how to move forward—in other words, conducting Tenet 1: Business Strategy (Figure 5-1).

* Babette E. Bensoussan and Craig S. Fleisher, *Business and Competitive Analysis* (London: Pearson Education, 2007).



FIGURE 5-1

Tenet 1: Business Strategy

The Blockbuster Value Proposition, Part 2

Let's jump back to the drama we left in Chapter 3 in which our UX strategist, Jaime, talks to Paul, a big-time movie producer, about Paul's shopping-site idea for the wealthy busy man. They're on a Hollywood back lot, and Paul's just revealed how his value proposition also solves his personal problem.

INT. BUNGALOW – MORNING

The shot frames JAIME and PAUL. Paul is cocksure. JAIME is inquisitive.

JAIME

Do you know if there are any competitors already in the space? Is anyone already doing this?

PAUL throws up his hands. He's super amped about his idea.

PAUL

My wife and I have looked around, but we haven't found anything that really nails it.

DISSOLVE TO:

INT. BUNGALOW — MORNING

It's two weeks later, and Jaime is back in the bungalow after conducting competitive research. Paul is staring at hard copies of the Competitive Analysis brief. He seems baffled and annoyed.

JAIME

As you can see from my research and analysis, there are actually several competitors with significant funding already delivering your product idea to the marketplace.

PAUL

I have never heard of these companies. So you think it's risky to try to directly compete against them?

JAIME

Well, actually, I think we should consider doing more research about the customer you want to target. And explore how they currently solve their problem.

PAUL

I already know there are lots of guys like me who hate shopping.

JAIME

How about we interview them and run some experiments to test variations on your value proposition?

PAUL

I feel like we can just start building out a website and see how things go.

JAIME

Why don't you take a closer look at all the sites from the competitive research and see how they work. Or have your wife look at them. I also made some recommendations on other ways to attack the problem with an ecommerce business model.

PAUL

I still think my original idea has legs.

END SCENE.

Paul obviously wasn't happy with the competitive analysis, but guess who was. His wife! She sensed that this idea could be a money pit and was glad to have a strong second opinion to back up her instincts. In the end, Paul the movie producer dumped this idea and went back to making movies. I never heard from him again.

Lessons Learned

- You must question your stakeholders and clients about their understanding of the competition to ensure that whatever statements they make are thoroughly backed by empirical research.
 - The analysis should also provide recommended alternatives, especially if the initial product vision and business model have risks. After all, you do want to help clients convert their dreams into an executable strategy.
 - Sometimes, people have fixed ideas, and no amount of research will change their minds. That's when the strategist has to ask a personal and ethical question of themselves: Will I help this person make their product regardless of the research, or do I walk away?
-

What Is an Analysis?

In order to face down Paul, I needed to present the facts. My presentation had to be meaningful to him and help him see the reality of his product in the marketplace. If I had just presented him with the raw data from my Competitive Analysis Matrix tool, he wouldn't have known how to digest all that information, and/or he might have pulled his own conclusions from the data. To achieve all that in one document, I needed to analyze all the research I did in Chapter 4, then distill it into smaller and actionable bites. In combing the data for relationships among different inputs, I was able to focus us as a team on the next most reasonable steps—which in the case of Paul's idea was more user research to validate his customer segment and the problem. (See Chapter 3.)

Because you've just meticulously explored your competitors in Chapter 4, you're now ready to develop the intelligence about what's working, why it's working, and what opportunities are available for your product in the evolving marketplace. It's your job to scrutinize everything and ultimately cherry-pick and recommend to the team the crucial features and opportunities that will ultimately create value innovation (Tenet 2). To make the competition irrelevant, you will have to offer something unique that radically improves on your users' current options, and you'll figure this out by diving into the spreadsheet and analyzing the raw data. Simply offering as many features as you can doesn't address what features customers actually want or need to accomplish their primary goal.

In addition, you want this analysis to go beyond being a side-by-side feature comparison. For example, it should not be something like "This is how all the competitors do the onboarding process." Or "All of our competitors have these features, so we should, too!" Steve Blank wrote a "Death by Competitive Analysis" rant* in which he argues that making a "my features versus their features" document will ultimately sink the ship.

* Steve Blank, "Death by Competitive Analysis," *Steve Blank*, March 1, 2010,
https://oreil.ly/_SuIP.

Converting information into meaningful intelligence is one step in a larger process called *competitive intelligence* (CI). As described in the book *Business and Competitive Analysis*, “Competitive intelligence is the process by which organizations gather actionable information about competitors and the competitive environment and, ideally, apply it to their planning processes and decision-making in order to improve their enterprise’s performance. CI links signals, events, perceptions, and data into discernible patterns and trends concerning the business and competitive environment.”*

The Four Steps to Conducting a Competitive Analysis

To demonstrate how competitive research gets turned into meaningful competitive intelligence, I’m going to return to the Competitive Audit I conducted for Airbnb for Weddings in 2020 and show how I build out a competitive analysis. When I’m done with this labor-intensive process, I’ll share how I document the major takeaways to create a Competitive Analysis Brief, which I then share with clients like Paul the movie producer.

Just follow these four steps; I will walk you through each in detail:

1. Scan, skim, and color-code the cells of each competitor.
2. Create logical groupings for relevant comparison.
3. Benchmark and SWOT your competitors (this goes in the last column of the spreadsheet).
4. Summarize your findings in the Competitive Analysis Brief.

STEP 1: SCAN, SKIM, AND COLOR-CODE EACH COLUMN FOR HIGHS AND LOWS

Let’s begin by looking at the heap of raw data in your spreadsheet by making it more digestible for yourself and your team. Ideally, you’ve had a chance to take a break from it so that you can return to the

* Babette E. Bensoussan and Craig S. Fleisher, *Business and Competitive Analysis* (London: Pearson Education, 2007).

information with a fresh perspective. In either case, it's probably a good idea to reacquaint yourself with all rows (competitors) and columns (attributes) before drawing out your analysis of them.

Scan and skim the data

To do that, I use two speed-reading techniques: skimming and scanning. *Skimming* means moving your eyes rapidly over text to get the basic meaning of it. *Scanning* is rapidly covering a lot of material while searching for a specific thing. I skim and scan a lot during a data analysis but not to be sloppy or to cut corners. Instead, I want to quickly discern how simple or complicated the task at hand is. Is my spreadsheet 5 rows by 5 columns? Or is it 12 rows by 24 columns with lots of missing data? Estimate the density and completeness of the content you are about to analyze so that you'll know how long it will take. This matters because you probably have a fixed amount of time to do this task, and you don't want to waste precious project hours by going down the rabbit hole on just one row of analysis. For instance, if you have 20 competitors to analyze and 20 hours in which to complete this task, you have 1 hour to analyze each competitor. Time blocking for both research and analysis is essential because you want to have a balanced perspective while avoiding analysis paralysis.

Also, notice if something looks incomplete or missing. Did you or whoever did the research overlook an obvious competitor that needs to be considered? Is the column with the monthly traffic or apps downloaded blank? That attribute could be quite important to know, and it's a colossal distraction to have to stop an analysis to switch gears back into research mode.

Measuring raw data points

A *data point* is a discrete unit of information. Any single fact or observation is a data point. In our spreadsheet, each column of attributes is a single data point. Data points can help us make comparisons and assessments. Data points can consist of quantitative data and/or qualitative data. (See Table 5-1.)

Quantitative data is numbers and statistics. How much traffic did a website get? How many transactions? How many listings are on the platform? Numbers can be metrics, transactions, and/or a finite set of options. Unlike qualitative data, these numbers have logic or order

applied to them. For example, the quantitative data points of a Starbucks latte might be the size of the cup, the temperature of the coffee, the price, or the time it took the barista to make it.

Qualitative data is descriptive and subjective. It's the stuff that makes up interesting insights, such as opinions, reactions, emotions, aesthetics, physical traits, and so on. The qualitative aspects of a Starbucks latte are its taste, its aroma, the frothiness of the cream, the aesthetics of the environment in which it is made, or the service.

TABLE 5-1. Table comparing quantitative data and qualitative data

QUANTITATIVE DATA	QUALITATIVE DATA
Numbers (metrics, data sets)	Descriptive
Can be measured	Can be observed but not measured
Length, area, volume, speed, time, and so on	Opinions, reactions, tastes, appearance
Objective	Subjective
Structured	Unstructured

There are often ways to convert qualitative data points into quantitative data points to make more objective comparisons. As mentioned in Chapter 4, the suggestion of giving a grade to your competitors' heuristic reviews so that there could be a discernible scoring system is key. However, there is no need to convert all data points because the qualitative data is often more comprehensive.

Fun with color-coding

You can color-code the spreadsheet to keep track of meaningful data points, trends, and other patterns, as shown in Figure 5-2. For example, use green to highlight positive attributes (i.e., site with the highest monthly traffic) and red to highlight negative attributes (i.e., site with the lowest monthly traffic). Just remember to keep it simple and use colors effectively. Creating a complex code in this initial pass won't help your analysis, and it can confuse other team members who are also popping in to check out or add to the raw data. The color coding should be used sparingly to highlight things that are crucial to consider when you do the analysis.

Monthly Traffic: 53.52k views Instagram: 12.7k followers, last activity in August 2019	41 wedding venue listings in 5 states. 14 venues in Southern California. They seem focused on California.	Wedding venues
Monthly Traffic: 11.5 million views Category: Lifestyle > Weddings it is #1	Wedding venue listings in 50 states; 700+ venues in Los Angeles	Wedding planning tools Local vendors Wedding content

FIGURE 5-2

Highlighted cells showing color-coding of meaningful attributes

STEP 2: CREATE LOGICAL GROUPINGS FOR COMPARISON

Now that you have an overall sense of your data, you need to do a little housekeeping to make the process of analysis efficient. You want to compare the sites and apps in your analysis that have logical and relevant things in common. You want to compare apples to apples, oranges to oranges, and mobile apps for fresh produce delivery against mobile apps for fresh produce delivery. Thus, you need to manually sort the competitors in the list into subgroups, or “buckets,” within the indirect and direct competitor categories that make logical sense to compare. For example, “Airbnb for Weddings” had several indirect competitors who all offered the same value proposition of being a platform for discovering short-term event spaces, including ones for a wedding reception (Splacer, Peerspace, and VenueBook).

Table 5-2 shows examples of potential subgroups.

TABLE 5-2. Table of logical subgroups

LOGICAL SUBGROUP EXAMPLES
Desktop versus mobile platforms
Content type (for example: ecommerce, publishers, or aggregators)
Horizontal markets (Craigslist, Amazon, eBay, Walmart, and so on)
Vertical markets (clothing, health, banking, and so on)
Value propositions or business models

If you don’t have any obvious groupings beyond direct or indirect competitors, you can order the rows by relevance to your value proposition. Remember, your goal is to make it easier to identify which factors give other products their competitive advantage. You are looking for commonalities and differences so that you and your team can truly understand why certain products are more successful than others.

STEP 3: BENCHMARK AND SWOT YOUR COMPETITORS

The term benchmark originates from the chiseled horizontal marks that surveyors made in stone structures to ensure that a leveling rod could be accurately repositioned in the same place in the future. These marks were usually indicated with a chiseled arrow below the horizontal line, as demonstrated in Figure 5-3.*

* “Benchmark (surveying),” Wikipedia, <https://oreil.ly/dQoDk>.



FIGURE 5-3

An Ordnance Survey cut mark in the United Kingdom (“BmEd” licensed under Creative Commons)

Competitive benchmarking in the business world helps organizations identify and examine key facets of another company, product, or service so that comparisons can be made to better forecast the future. And in the context of UX strategy, you’re going to benchmark relevant competitors in the matrix against one another by first comparing them on an attribute-by-attribute basis.

Each column on the spreadsheet represents a different attribute, and you’ve collected data points about each one of these, no matter if it’s funding, activity on social platforms, or a usability grade for a critical use case. These quantitative and qualitative data points give you the ability to measure, score, and identify 1) best UX practices versus lame UX practices, 2) successful business models, and 3) kick-ass competitive advantages.

When you benchmark direct competitors, you want to find competitive parity among their products. You’re looking for a baseline that defines the bottom-line criteria that future customers will expect when your team delivers on the value proposition. For example, in the Airbnb for Wedding’s competitive analysis, I benchmarked the available wedding venues in Los Angeles across The Knot (700+), Wedding Spot (700+), and Here Comes the Guide (100+) because this was a crucial metric.

But dig deeper. Do customers expect that a product or listing detail page will have photos, videos, transparent pricing, and reviews? Does the most popular competitor do everything well? Or are they winning for other reasons? Does the company behind the most innovative and

downloaded platform/app have lots of funding but no apparent business model? Call out a competitor if it's a serious threat—if it has a large market share, if it caters to your intended customers, if its product is solid, or if it has copious financing to scale quickly.

When you benchmark the indirect competitors, you're analyzing how these digital products offer alternative ways to solve the problem that you are trying to solve. For example, in the Airbnb for Wedding's competitive analysis, I benchmarked how hard it was to search specifically for wedding venues and whether the ones available were suitable. These data points were important because if Airbnb for Weddings was just going to be about discovering venues for ceremonies and receptions, it needed to offer more amenities that were pertinent to wedding events.

You are looking for trends, standards, gaps, and an overall sense of the look and feel of the landscape. Often, you will notice unintuitive design conventions being repeated across many sites within a vertical market. You might wonder why they're all broken in the same way. You might realize that they are all overlooking an especially useful capability that could be the secret sauce you use in your value innovation. (See Chapter 6 for more.) You might learn about a challenge that wasn't apparent before. Are most of the losers missing the mark on content, traffic, or personalization? Or do they have a bad browsing or search experience? Determine the causes. By benchmarking the competition, you'll find opportunities to create value by either innovating or optimizing the best UX and business model practices of other competing products. You'll also want to mine these golden nuggets as possible recommendations to put in your brief.

Attacking the analysis column

The reason you waited to do this column in the Competitive Analysis Matrix template is that you needed to collect as much data as possible about the entire competitive landscape of your value proposition. But now, you're finally ready to fill it out.

The SWOT analysis is a widely used strategic planning tool that captures a company's position in the marketplace. The acronym stands for "strengths, weaknesses, opportunities, and threats." The output of the analysis is typically shown as a 2 x 2 matrix. (See Figure 5-4.) While

its origin is still debated, the technique is typically credited to Albert Humphrey, who analyzed data for top American companies while at the Stanford Research Institute during the 1960s.

Strengths	Weaknesses
Characteristics of a business which gives it advantages over its competitors	Characteristics of a business which makes it disadvantageous relative to competitors
Opportunities	Threats
Elements in a company's external environment that allow it to formulate and implement strategies to increase profitability	Elements in the external environment that could endanger the integrity and profitability of the business

FIGURE 5-4

SWOT analysis

The method is quite similar in concept to the Business Model Canvas discussed in Chapter 2 in that it is a self-assessment framework for stakeholders to collaboratively brainstorm before they make critical decisions about their business strategy. That said, doing a SWOT analysis of a nonexistent product or business moves us into the land of make-believe. This is why it's more meaningful to use it for evaluating competitors from *their perspective*. It helps you and your team better understand where their market position is compared to your proposed value proposition. And that is exactly how you are going to use it now, whether you do it by yourself or collaboratively with team members.

We are now going to fill out the Analysis column for each competitor. We'll do it one row at a time by evaluating all the data points we just collected, especially the ones color-coded green and red. This column needs to include all the big takeaways the stakeholder should know if this is all they read. We want to encapsulate each competitor's strengths, weaknesses, opportunities they've leveraged, and whether any potential threats exist from external factors (i.e., government regulation).

SWOT Analysis from the Competitor's Perspective

WEDDING SPOT

Strength:

Product features: The Spot Estimate feature increases price transparency. The side-by-side venue comparison feature simplifies the user experience in the initial venue research phase. By providing this price estimation tool to wedding planners, Wedding Spot builds trust between the platform and the users, and reduces the time spent on responding to undesired leads for venues.

Weakness:

User experience: Since Wedding Spot is a two-sided marketplace and does not have control over pricing, users will still need to reach out to venues to ask for final quotes based on their actual needs. This makes the pricing estimate not as useful.

Branding: There is a lack of human touch in Wedding Spot's brand. The choice of website photos and the copies feel venue-centric but not user-centric.

Opportunity:

New user segment: Wedding Spot could leverage its wedding vendor resources to provide premium wedding venue packages to the customer segment who want professional wedding venue services without worrying about price surcharges.

Threat:

Regulation: Online advertising faces threats from intensifying regulations, and consumers are increasingly aware of the distinction between advertisement and organic search results, which challenges the company to prove the viability of their current business model.

FIGURE 5-5

Direct competitor analysis example (Wedding Spot)

Focus on insights that are relevant to their user experience and your value proposition. For indirect competitors, this may mean analyzing only a portion of their business or product. For example, if you were creating a furniture website and listed Amazon as an indirect competitor, you should analyze Amazon's furniture offerings, not the entire company.

Their strengths should highlight things they are doing that are particularly great. The weaknesses should illustrate what our target customer can't do well with their solution. For Airbnb for Weddings, the direct competitor's (Wedding Spot's) SWOT (Figure 5-5) reveals that they offered numerous wedding venue listings along with a robust mechanism for finding affordable ones with a comparison tool and transparent pricing.

Alternatively, if you look at The Knot's SWOT (Figure 5-6), they offered a comprehensive wedding planning tool, but you had to contact every wedding-venue vendor yourself for a quote, making the process quite time-consuming. An opportunity for both The Knot and Wedding Spot would be to offer premium packages, but so far they are not doing that.

SWOT Analysis from the Competitor's Perspective	
THE KNOT	
Strength:	
Product features:	The Knot provides a comprehensive wedding planning tool to help new couples, mainly new brides-to-be, navigate every step of wedding preparation. This capability is the defining factor that retains users. Out of convenience, users are incentivized to search for and hire wedding venues and vendors directly so information is automatically collected in one place. The Knot also allows users to chat with venues directly so communication is streamlined for tech-savvy users.
Business model:	With the largest website traffic and a customer base ready to be advertised to, The Knot's advertising business model provides ample revenue for it to grow.
Weakness:	
Underserved user segment:	The Knot does not provide extensive customer service to wedding planners, and it does not have the option to hire a wedding manager. So choosing services from The Knot means having to manage every detail and coordinate all the vendors by oneself. This is not ideal for users who want a worry-free experience. Worse, each vendor, including wedding venues, need to be contacted for quotes.
Opportunity:	
New user segment:	The Knot could leverage its wedding vendor resources to provide premium wedding planning packages to the customer segment who want professional wedding planning services.
Threat:	
Regulation:	Online advertising faces threats from intensifying regulations, and consumers are increasingly aware of the distinction between advertisement and organic search results, which challenges the company to prove the viability of their current business model.

FIGURE 5-6

Indirect competitor analysis example (The Knot)

And a threat to online advertising as a primary revenue stream is that a growing majority of consumers are less likely to click on online ads because of privacy concerns. As you can see, strengths and opportunities for the competitors are potentially threats to our value propositions. Meanwhile weaknesses and threats to them may be opportunities for us.

Reorganize your competitors one last time

At this point, you should see nuances among competitors. You've benchmarked attributes. You've identified strengths and weaknesses among them. You can gauge which competitors have unique offerings or are simply red-ocean copycats. You can also discern what your competitors are not doing. As author and professor Richard Rumelt puts it, "Strategy is at least as much about what an organization does not do as it is about what it does."^{*} You have a sense of the diversity of business models in play. You can also say which competitor is number one and number two and who's doing something impressive even if they're farther behind in the marketplace race than others. So before we move on to the final step, it's time to rank and reorder the direct and indirect

* Richard Rumelt, *Good Strategy Bad Strategy: The Difference and Why It Matters* (New York: Crown Business, 2011).

competitor lists in the spreadsheet so that the most threatening ones in both categories are at the top of their sections in order of first, second, and third place.

Notice how the analysis cell imparts a succinct and decisive summary of the competitor. This is important because even if your team and stakeholders have access to your raw data in the spreadsheet, they might not have the time or inclination to carefully review it. Your goal is to distill everything critical from all the columns to the left into this Analysis column and then color-code it yellow so it pops out.

STEP 4: CREATE THE COMPETITIVE ANALYSIS BRIEF

The end goal of the spreadsheet analysis is to distill your learnings into a brief or presentation that explains the rationale behind your recommendations. The findings brief is an easy-to-read summary of your competitive analysis along with your recommendations about how to move forward. This document will be what your client or stakeholders take away from your research.

Before you begin writing the findings brief, take a moment to step away from your spreadsheet. Zoom out from the details and think hard about the big picture. You want to be able to answer the following questions about the marketplace:

- Which competitors are already delivering a similar value proposition? How are their products succeeding? And/or how are they failing?
- Which competitors directly appeal to your customer segment (from your validated persona)? What features, functionality, or content do they have that your users might like?
- What products offer the best user experiences and business models? Who is doing something truly unique?

Second, you need to address in the brief if there's even room in the market for your product. What opportunities exist for it? What gaps could it fill? Perhaps your competitive research and analysis have revealed that your team has hit the entrepreneurial jackpot. Perhaps your product falls into one of the following categories:

- Is first to market (“first mover”) with something unique, such as how Tinder changed the online dating experience with the swipe gesture and short profiles that can be filtered by geolocation.
- Offers users a better method to save time or money or both. For example, Citymapper uses open transport data to show optimal transit options to navigate a city without having to drive your car.
- Creates simultaneous value for two different customer segments, like Airbnb does for hosts and guests or Eventbrite does for event planners and attendees.

Any of these options mean that you’ve found a blue ocean, which was discussed in Chapter 2. The thesis of the book *Blue Ocean Strategy** by W. Chan Kim and Renée Mauborgne centers on the uncontested marketplace in which the competition becomes irrelevant because there is none. A blue ocean is full of customers with unmet needs. A red ocean is a market full of sharks fighting for the fish. Before you write your brief, you should know whether your product is in a blue, red, or a somewhere-in-between purple ocean (such as the lovely vista in Figure 5-7). In short, your goal is to determine if there’s room to win, and that’s when you need to address the opportunities based on the research.



FIGURE 5-7

A purple ocean

* W. Chan Kim and Renée Mauborgne, *Blue Ocean Strategy* (Brighton, MA: Harvard Business School Press, 2005).

Competitive Analysis Briefs are sometimes delivered as traditional letter-size (A4) text-only reports, but often they are so dense and overwhelming that stakeholders don't want to read them. This is why I prefer to use a presentation format. It forces the strategist to be more concise with their narrative. A presentation brief also functions as something that can be first presented in a remote or onsite meeting setting and then distributed as a takeaway deliverable.

THE BRIEF ELEMENTS

Based on what I've seen and delivered over the years, I've noticed some primary components to the analysis brief. I'm going to walk you through an example brief so you can get a sense of what they contain. For presenting it at a meeting, it should be broken up into more slides with less text.

Here is the outline. It may be helpful to first create placeholder slides for each of the sections so that you have a basic structure in which to place the content as you work your way through the deck.

1. Title Slide (one slide)
2. Introduction (one slide)
3. Most Threatening Competitors (one slide)
4. Direct Competitors (two to three slides)
5. Indirect Competitors (two to three slides)
6. Current Marketplace (one slide)
7. Opportunities and Recommendations (one slide)

Keep in mind this is just one framework for presenting your findings. You should create your content based on what is most relevant to your situation.

Slide 1: Title

A good title slide has a minimal amount of information similar to a pitch deck that a startup uses for fundraising. As shown in Figure 5-8, it can also include an aspirational image. Here are the basics:

1. Name or placeholder name of the product
2. Title "Competitive Analysis" or "Competitive Analysis of the Online Marketplace"

Airbnb for Weddings Competitive Analysis

November 2020

JaimeLevy.com

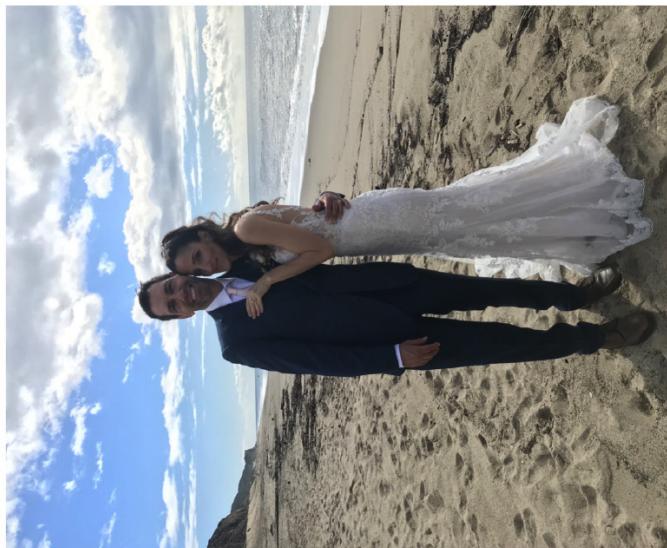


FIGURE 5-8

Cover of Competitive Analysis Brief

3. Date
4. Name and/or logo of the company or person who created the brief

Slide 2: Introduction

The introduction presents the goals of the brief and tries to hook the stakeholder into a) reading it, and b) reviewing it with an open mind. You might find that you need to rewrite this slide several times to get it right. Don't be too afraid to draft a quick summary of what you think this page should be and then return to edit it after you've pulled the rest of your content together. If there is space and you want to make it more visual, this is a good place to include a photo that is representative of your validated persona.

Paragraph 1: Set the stage

Check out Figure 5-9 as a reference, and then below I will deconstruct the content of this first paragraph.

[Problem statement]. This is why the concept of [initial value proposition] seems like a [positive adjective] value proposition. In [month, year], [your name or company name] conducted a competitive analysis on the [market or sector] focused on online competitors who helped the [target customer segment] find [solution].

Be sure to state the problem statement and initial value proposition clearly so that there is no confusion as to what you are focusing on. It's also crucial to include the month and year in which the study was conducted because the analysis is truly a snapshot in time that will become outdated as the competitive landscape evolves.

Paragraph 2: Give a general overview of the current marketplace.

Here is where you establish the state of play, aka the present situation of the marketplace, in your competitive analysis. You could say something like "There are numerous online competitors who allow users to discover wedding venues." Or "The wedding sector is splintered into these core groups..." For additional context, you should also include an explanation of the logical competitor sub-groups, if they exist. At the very least, list all of the competitors you researched, and break them out by direct and indirect competitors. What you should not say are your key findings and recommendations. You need to build up to that conclusion with the following evidential slides you're about to create.

Introduction

Los Angeles brides-to-be have a difficult time finding affordable venues for their big wedding day. This is why the concept of “Airbnb for Weddings” seems like it may be a tantalizing value proposition. In November of 2020, JaimeLevy.com conducted an exhaustive competitive analysis of the wedding industry focused on online competitors who helped the brides-to-be find a variety of wedding planning and venue options.

The direct competitors, **Wedding Spot, Wedgewood Weddings, and Here Comes the Guide**, focus on exploring and booking wedding venues, while the indirect competitors serve as platforms for finding wedding vendors (**Yelp**), discovering short-term event spaces (**Peerspace, Splacer, VenueBook**), or providing wedding planning services (**The Knot**).



FIGURE 5-9

Introduction to Competitive Analysis Brief slide

Slide 3: Most threatening competitors overview

From this slide on, you are building a case for your recommendation. This is why you should consider taking a hard look at all of your SWOT to brainstorm where the opportunity lies.

Start with the bad news first. In this section, you should highlight no more than two or three competitors regardless of whether they are direct or indirect. Do not simply copy and paste their value propositions onto this slide. Instead, write one or two sentences that capture their competitive advantages relative to your value proposition; this is why they are threatening. This could be many things: major funding, massive market adoption, a highly innovative feature, and/or successful business models. Because all of this information should be in your competitive analysis spreadsheet, you should just be pulling it into a summary here.

For Airbnb for Weddings, I chose two competitors who had the most traffic, highest brand recognition, and best wedding-venue search features (see Figure 5-10).

You can place the company logo or app icons (if all of the competitors are mobile apps) above or beside the explanations. Do not put competitor screenshots onto this slide because doing so will clutter the page. You want to save them for the competitor detail slides.

Most Threatening Competitors Overview



Wedding Spot is the direct competitor that offers the most powerful discovery and comparison mechanism for wedding planners to easily search, price, and book wedding venues.

The Knot is an indirect competitor with the most name recognition. The platform features a well-crafted wedding-planning tool. It serves to incentivize users to conduct their venue search within the platform's ecosystem of thousands of vendors.

FIGURE 5-10

Threatening competitors high-level-view slide

Slide 4a, b, c....: Direct competitor details

Next up, let's talk about the direct competitors in detail. How you choose to showcase them depends on what aspect of their value proposition will best support your key findings and recommendations at the end of the brief. This information should also be in the competitive analysis spreadsheet, primarily in the SWOT-analysis column. Start by picking the topmost threatening competitors, and order them from most-to-least threatening.

For each one, include the following details, as shown in Figure 5-11:

- 1.** Title and or logo.
- 2.** Value proposition.
- 3.** Three concise pros from the spreadsheet labeled as strengths from your SWOT analysis or green color-coded attributes about the UX or business strategy.
- 4.** Three concise cons from the spreadsheet labeled as weaknesses from your SWOT analysis or red color-coded attributes about the UX or business strategy.
- 5.** One to two screenshots of the products that illustrate the pros and cons; use call-outs if possible. Point out features or layouts that you believe should be considered for your solution. You can also highlight any of the competitors' weaknesses if it presents an opportunity on which you can improve.
- 6.** At least two to three relevant structured data points to show competitive benchmarking. For Airbnb for Weddings, I included the following data points: funding, the number of listings in Los Angeles, and monthly traffic. When designing your slide, make it easy for your reader to compare them by placing them in a similar location and/or using iconography.

For Airbnb for Weddings, I also discussed each direct competitor on separate slides. Each slide had the same layout. The three direct competitors I chose were Wedding Spot, Here Comes the Guide, and Wedgewood Wedding.

Direct Competitor: Wedding Spot

Value Proposition

Wedding Spot is an online marketplace that allows wedding planners to search, price, and book wedding venues.

Pros

- Side-by-side venue comparison
- Price transparency with spot pricing tool
- User profile for saving and messaging venues

Cons

- Have to reach out to venues for final quotes
- Branding lacks human touch
- Venue-centric content over user-centric content

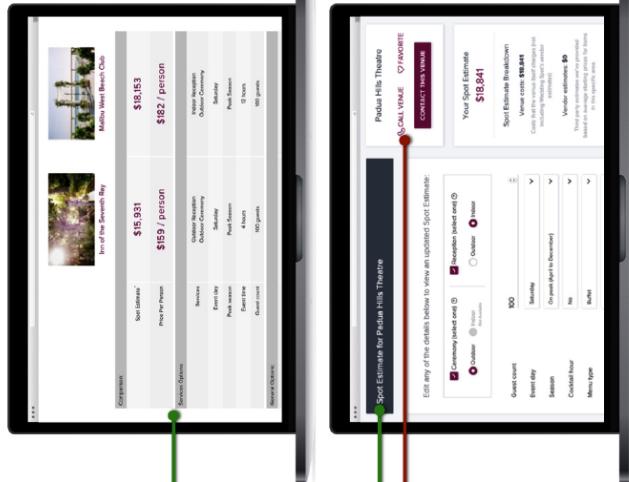


FIGURE 5-11

Direct competitor details slide (Wedding Spot)

Slide 5a, b, c....: Indirect competitor details

Now it's time to impart what we've learned from the indirect competition. If there are many, narrow them down using logical subgroups. (See Step 2 in this chapter if you need a refresher.) Aim for a total of up to three slides that focus on the distinct ways your customers' needs are fulfilled by these other products.

You can use the list of details from the direct competitor section as a starting point. But what is more important is to highlight what they are doing right with respect to your value proposition. Therefore, data points such as funding, listings, and traffic may be inconsequential, especially if it's a horizontal marketplace or aggregator. Showcase the relevant screens and attributes of these competitors so that your product team is both aware of them and potentially inspired.

For this brief, I used the indirect competitor slides to discuss important aspects that were not satisfying the customer's needs. As I said earlier, I organize the slides to support my conclusions at the end of the brief. That's why I ended up giving Yelp its own slide. Our customer segment might first look at this go-to platform for finding wedding venues and other relevant vendors. See Figure 5-12 to see how I pointed out the weaknesses. You'll see why this is important when we get to my recommendations.

Next, I used one slide to discuss the indirect competitor subgroup focused specifically on venue space rentals: VenueBook, Peerspace, and Splacer. (See Figure 5-13.) They all share two-sided marketplace business models similar to Airbnb but with an option for filtering by wedding events. After comparing the critical features like searching, the listing detail pages, and even the onboarding experience for hosts, I was then able to pinpoint the frictionless UX key experiences across these products.

As I mentioned earlier, don't be surprised if you can't write these slides consecutively or if in writing one slide, you realize you need to go back and edit others. Or if you get a brainstorm on what your final recommendations should be, which is what happened to me.

The Knot became a crucial competitor as I realized that offering only private party wedding venue listings would not necessarily guarantee an affordable wedding. There are just too many other factors that can

Indirect Competitor: Yelp

Value Proposition

Yelp is the largest business directory service and crowdsourced review forum in the U.S. that connects local businesses with customers. Wedding planners can use Yelp to search local wedding venue information.

Pros

Go-to site for finding a wide variety of local vendors

Average response time listed for some wedding vendors

Lots of user-generated content (reviews and photos)

Cons

Venue listings lack wedding-specific amenities

Many of the reviews are not about wedding events

Offers little more than a search engine for local vendors

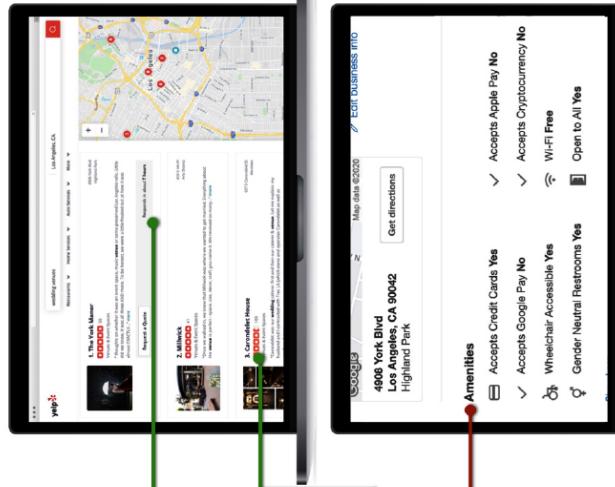


FIGURE 5-12

Indirect competitor details slide (Yelp)

Indirect Competitors: Venue Rental Platforms

Value Proposition

VenueBook, **Peerspace**, and **Splacer** are online marketplaces that connect event planners with managers of venues and creative spaces. Each has a wedding sub-category for brides-to-be.

Pros

Access to a wide variety of unique venue spaces

Some venues offer numerous wedding-specific amenities
VenueBook has a questionnaire to customize a package

Cons

Limited number of venues in Los Angeles

Similar price points as traditional wedding venues

Many venues were not equipped for large formal events

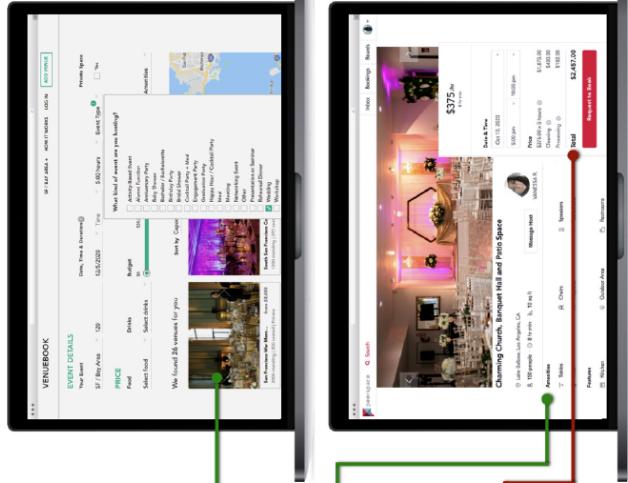


FIGURE 5-13

Indirect competitor details slide (VenueBook, Peerspace, and Splacer)

bring up the total cost. The Knot's value innovation was in their wedding planning and budgeting tools.

At this point, I was unsure what the unmet need was in the marketplace. So I used my lifeline. I called my sister-in-law who had recently organized her wedding to my brother with a budget of \$12,000. It was a second marriage for both of them. The guest list was small, with only about 60 people, and the bride and groom had both wanted the ceremony by the beach. My sister-in-law explained how even with a platform as comprehensive as The Knot, she was overwhelmed by all the options and couldn't make the budget work. Instead, she had to figure everything out herself using a spreadsheet.

That was when the idea crystallized for what the Airbnb for Weddings value proposition should become, as you will see in the Opportunities and Recommendations slide (shown in Figure 5-16).

And as I worked my way backward from the Opportunities and Recommendations slide after vacillating on the value proposition, I realized that perhaps The Knot could become a direct competitor if we were to move forward with the new direction (see Figure 5-14). But for the purpose of storytelling, I left it as the last competitor slide because it was the most important competition to make irrelevant by painting it as the Goliath that needed to be brought down.

The big reveal!!!

The conclusion is the most important section of the brief, and all of the previous slides need to add up to your conclusion, just like $1 + 1 + 1 = 3$. You need to articulate your informed view of the opportunity space, which is the world of unmet needs where your product team can create unique value with either an innovative user experience or business model or both. This needs to be expressed with concision and authority; try to break it down into two slides.

Slide 6: Current marketplace

This slide summarizes your key findings about the competitive landscape and how it all adds up (see Figure 5-15). Is it a blue ocean, a red ocean, or somewhere between? State or restate who the most threatening direct or indirect competitor is and how your potential customers are currently using them as their solution. But, emphasize their major drawbacks. Just how much is the market worth? You may be able to find

the knot

Indirect Competitor: The Knot

Value Proposition

The Knot is an all-inclusive wedding platform connecting couples with the products, services and vendors they need to pull off a wedding that is uniquely their own.

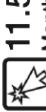
Pros

Incredibly personalized and sticky
Comprehensive planning and budgeting tools
Massive brand recognition and user/vendor base

Cons

Not geared toward couples with a limited budget
Managing every detail is time consuming for many users
Numerous negative complaints about customer support

 Publicly traded

 700+ LA listings
 11.5M Monthly site visits

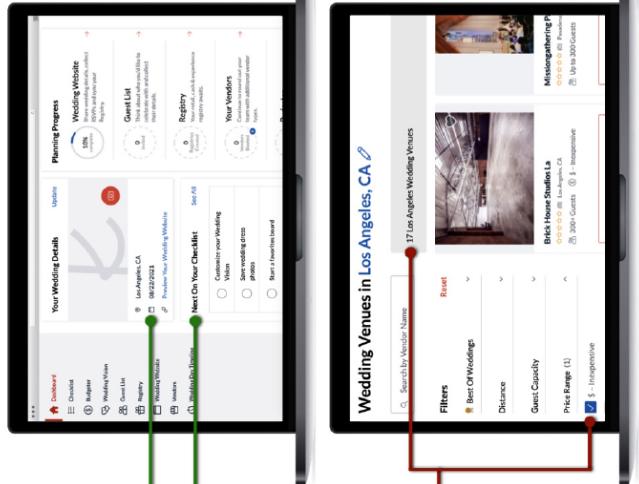


FIGURE 5-14

Indirect competitor slide (The Knot)

Current Marketplace

For brides-to-be who are just looking for a wedding venue, the **\$72 million wedding industry market** is quite saturated. There are several direct and indirect competitors who offer users **hundreds of listings** to available wedding venues in Los Angeles alone. Of those listings, there are a **small fraction that cost less than \$2,000** and/or also **require the customer to purchase the food and beverages** as part of the venue package.

The most widely used competitor, The Knot, also offers powerful features such as wedding planning and budgeting tools. But even so, it is extremely **challenging to plan an elegant wedding in Los Angeles for under \$32,000** which is the average cost of a wedding in the USA.

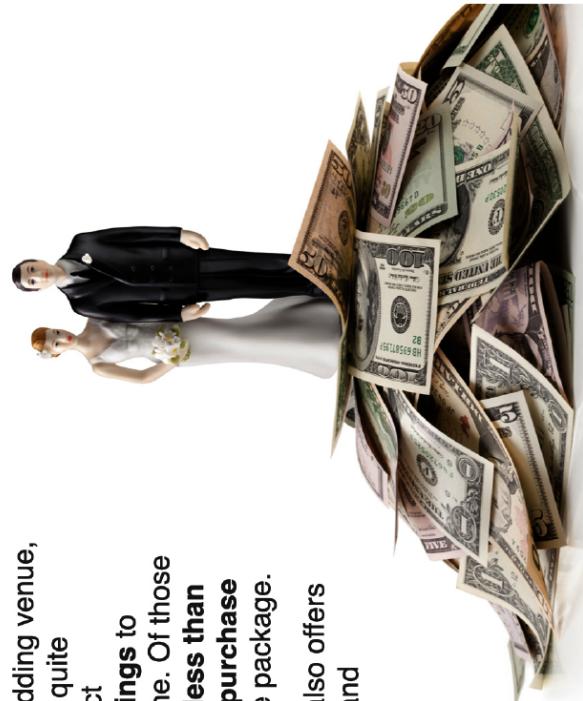


FIGURE 5-15

Current marketplace slide

statistics regarding your particular industry and its purchasing power online or in publicly available reports. There are also many approaches to estimating market size yourself. For more on this, see Forbes's article, "How to Effectively Determine Your Market Size."^{*}

Slide 7: Opportunities and recommendations

An opportunity is a set of circumstances that makes it possible to do something. This is where you need to lay out your product strategy with a focus on the part that should be built first as an MVP or beta version to test with target customers. (We'll do this in Chapter 7.) If you found the market to be a red ocean, like I did, then you must demonstrate what aspect of the initial vision can still be realized. You don't want to leave your client with nowhere to go.

Identify the most important feature(s) your product must have to differentiate itself from your most threatening competitors and improve on the experiences they offer. You might consider moving on to Chapter 6 to generate a storyboard to think through how the most innovative features could work together. Last, talk about the most likely business model that makes the most sense for your customer segment (see Figure 5-16). Make sure you show why it's logical despite all the market dynamics at play.

After discovering that the wedding venue rental market was a red ocean, I realized that I needed to pivot to something that would truly improve on the shortcomings of The Knot. Sometimes people become overwhelmed by choices or a product with too many features. It's a big part of why the restaurant chain In-N-Out Burger is so successful in the United States—they have a small menu of excellent affordable items. The customer segment that I believed was underserved was the one that wanted a more modest wedding requiring less decision-making and a lower budget. As for the artificial intelligence and other turnkey solutions I mentioned in the slide, I'll explain that in Chapter 6.

* Alejandro Cremades, "How to Effectively Determine Your Market Size," *Forbes*, September 23, 2018, <https://oreil.ly/nm8dF>.

Opportunities and Recommendations



Initially, we thought that the option for a less-expensive backyard venue would be enough to bring down the total cost for wedding. However, there are numerous other factors such as food, alcohol, and decorations that create a decision-making landmine for budget conscious couples who prefer to have a more **intimate wedding** with a \$10,000 budget.

What they need is a **comprehensive wedding planning platform** that guides them through all the hard decisions by offering them customized packages with lower-cost alternatives. It would leverage **AI-powered budgeting tools** and a recommendation engine to allocate their limited resources based on what is essential to them. Potentially, the best business model for this concept is a 1-year **subscription plan for \$199**.

FIGURE 5-16

Opportunities and recommendations slide

Presentation and Takeaways

It's not uncommon for the client to only glance at the spreadsheet and appreciate that the UX strategist has done his homework. Thus, include the spreadsheet as an appendix, so the client can reference the raw data as needed and when convenient. I recommend downloading an Excel version of the Google spreadsheet so that the client can look at it offline or share it with others without having to link to the cloud version. You can also include a link to the cloud version if you expect this exercise to continue and potentially become collaborative.

It Is Time to Take a Stand

As a strategist, you are required to take a stand about the viability of the product. Sometimes, as in the case of Paul the movie producer, your recommendations won't be what the client wants to hear. It's just reality, and sometimes that's just how it plays out. Yet, the reason you conduct research and analyze data is to learn about the real potential of the product so that you can make informed and actionable suggestions despite your client's reactions.

You might learn that the client's initial vision faces a lot of challenges. You might also learn that there are better alternatives to the product. It's your job to analyze the data and present these insights with solid supporting evidence.

If your analysis supports the value proposition, your recommendations should suggest specific ways to capitalize on market opportunities and gaps through the user experience and business model. Your recommendations may answer these questions:

- Can a specific feature be majorly improved or new technology integrated to help customers do something that currently is too complicated or time-consuming for the existing alternatives?
- How can you make the product experience more personalized or "smart" to increase adoption and engagement?

- Is there a new revenue stream or disruptive business model that can be experimented with?
- How can you achieve a competitive advantage that your competitors can't easily replicate?
- If you are recommending a native application versus a responsive website, what is your rationale for why you are forfeiting organic traffic and forcing customers to download yet another app?

If your analysis reveals that the initial value proposition is facing certain risks, your recommendations may need to suggest a pivot on the targeted customer segment or the specific problem. You would need to recommend that your team or stakeholder pursue a different version of the value proposition and/or business model. As such, your comments might try to address these scenarios:

- Is this an expensive endeavor to take on, or are there ways to de-risk the vision by experimenting with MVPs through rapid prototyping? (See Chapters 7 and 8.)
- Do you see another possible angle that addresses aspects of the stakeholder's vision, or do you recommend that the team pivot on the customer or their problem? (See Chapters 3 and 8.)
- Does more research need to be conducted to really know if the value proposition is viable, such as with user research (see Chapter 8) or using landing page A/B tests? (See Chapter 9.)

You are now at the end of your competitive analysis, and you understand what kind of marketplace your product concept is facing:

- If you're in a red ocean, you need to ask, "Why am I creating something in a saturated marketplace?" You might need to go back to the earlier chapters and pivot on the customer segment or the initial value proposition based on what you learned.
- If you're in a purple or blue ocean, move on to Chapter 6. You're at the threshold of possibility to build an innovative product! Now, you will need to start plotting out a user experience that will capitalize on the opportunity.

Making hard decisions can be stressful even after we have done the deep research and analysis. Intuition may have to play an essential role if there are contradictions or ambiguities in the data. As Mintzberg says in *Strategy Safari*, “Decision making thus becomes not so much rational as a vain effort to be rational.”*

Recap

Product strategy needs to be based not only on the company’s business goals and organizational capabilities but also on a systematic understanding of the market environment. In this chapter, you learned how to conduct a competitive analysis, synthesizing information about your marketplace to uncover product design patterns and potential business models. A good analysis exposes gaps and opportunities that allow you to make sound judgments regarding your product strategy. Knowing the unknowns helps your team to not repeat mistakes but instead make good ideas great.

In Chapter 6, you will use what you’ve learned to create new value through differentiation and innovation focused specifically on the UX and the business model.

* Henry Mintzberg, Bruce Ahlstrand and Joseph Lampel, *Strategy Safari: A Guided Tour Through the Wilds of Strategic Management* (New York, Free Press, 1998).

Storyboarding Value Innovation

*Reaching beyond existing demand is a key component of achieving value innovation.**

—W. CHAN KIM AND RENÉE MAUBORGNE, BLUE OCEAN STRATEGY

IF YOUR GOAL IS TO INVENT SOMETHING UNIQUE, YOU NEED TO HOME in on the benefits that will make your product indispensable to users. That means you need to envisage the opportunities you uncovered in the prior chapters. To do that, you need to mash up the principles of Tenet 2: Value Innovation with Tenet 4: Frictionless UX (Figure 6-1).

If you're a seasoned design professional, be aware that this chapter is not about pushing pixels or making cool-looking deliverables. Instead, it's about using design hacks to focus your team sharply on identifying and maximizing your product's potential value innovation. It's about accelerating your thinking through your product's ultimate value proposition.



FIGURE 6-1

Tenet 2 and Tenet 4: Value Innovation and Frictionless UX

* W. Chan Kim and Renée Mauborgne, *Blue Ocean Strategy* (Brighton, MA: Harvard Business School Press, 2005).

Timing Really Is Everything

In 1990, I devised an interactive animation for my master's thesis at the New York University Interactive Telecommunications Program that fused my software design skills with my love for experimental art and music. It was a mash-up of technology and art jammed onto an 800 KB floppy disk. The electronic experience was programmed for the Macintosh in HyperCard and VideoWorks. The disk featured an interactive table of contents with links to animations of poetry, games, and rants combined with an industrial noise soundtrack. After numerous sleepless nights, I succeeded in my objective—to create what was to be the world's first animated electronic magazine. It worked, played, and all fit on one disk! This was *Cyber Rag* #1 (shown in Figure 6-2).

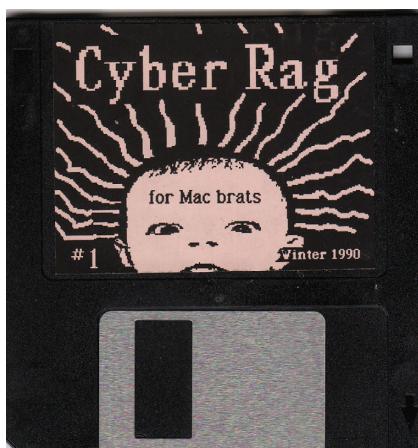


FIGURE 6-2

Cyber Rag (1990)
electronic magazine on
floppy disk

Sure, there were some competitors in the marketplace. For instance, there were nonanimated HyperCard stacks with tech-centric content. There was also an interactive art disk that ran on the less-popular Commodore Amiga and could be downloaded from a bulletin board service (BBS). But there was no other digital product like *Cyber Rag*, and I saw the golden opportunity to make digital content more mainstream and accessible to the masses by placing it on a Mac-based floppy disk.

However, it was one thing to create a completely original electronic magazine on a disk and quite another to get it out to the general public, have them recognize it for its originality, and buy it. Much as in Chapter 3, my younger self had to figure out who her customers were. I eventually learned they weren't the computer nerds of the 1990s who might download an electronic mag for free off a BBS. Even I did not

own a modem (yet). That's when I realized that *Cyber Rag #1* wasn't just tied into the experience of a new electronic publishing medium. It also aligned with the DIY attitude of other Generation X creators who self-published their own fanzines about pop culture. They just weren't doing it digitally yet. Somehow, I had to reach my Gen X peers who shopped in independent book and record stores. This meant that besides creating the physical product, I also had to somehow package it, market it, and distribute it.

A typical Saturday in my mid-20s involved saving copies of *Cyber Rag* onto hundreds of floppy disks. I glued labels, stamped leaflets, and sealed the packages, and then I'd walk into independent bookstores in New York City and Los Angeles to pitch my product to the owners. Their typical reaction was bewilderment because they had no concept of my value proposition at the time. Some owners didn't even have access to a Macintosh computer to preview the product for themselves. How were they to know that the disks weren't empty, corrupted, or filled with hardcore porn? I learned that the best tactic was to front the product initially to the store owners to lessen their fear of selling an unfamiliar publishing medium.

But the disks sold well. Customers were curious and willing to dole out six dollars to experience their first electronic magazine on a computer screen. Typically, a store would call me within a month after my initial pitch to ask me for more product. When I began to gain notoriety in the press, I started selling thousands of disks (*Cyber Rag #1, #2, and #3* and *Electronic Hollywood I and II*). The disks were on sale in independent bookstores, in art galleries, and via mail order; they even sold to people all over the world. I had no business model except to keep publishing disks until "something" happened.

Then, "something" finally did happen. After two years, I came home from my job as a typesetter to find a message on my answering machine.

"Hi, Jaime! This is Henry from EMI Records. We are calling on behalf of Billy Idol, who just bought one of your disk magazines. He wants to see if you are interested in working with him on his new project. Can you please have *your* people call *our* people to arrange a meeting? Thanks."

I was excited but also confused. Who were "my" people? Was I going to have to ask my mom to call Billy Idol?

My mom didn't call. I did. And I got the gig.

In 1993, EMI released *Cyberpunk*, Billy Idol's new album, on a CD that featured a floppy disk in a special-edition digipak, as shown in Figure 6-3.



FIGURE 6-3

Billy Idol's *Cyberpunk* album (1993) with floppy disk

It was the first-ever commercially released interactive press kit (IPK). The floppy disk was essentially a customized version—a “Save As” in Macromedia Director—of my software, bringing my innovation score up from one to two. I was stoked and thought this venture was going to make my career. From here, I would finally be able to financially support myself as an interface designer and electronic publisher. Soon everybody from David Bowie to Michael Jackson would call me for custom disk magazines for their future albums. Not just my early adopters but the entire world would finally “get” how cool this new electronic publishing medium was. The ocean seemed so blue!

Sadly, here’s where I hit bumps in the road. Sure, I had successfully innovated a new digital medium, found a blue ocean for it, and pushed it into two user groups (indie bookstore customers and rock-star musicians) who loved it. The thing was, though, Billy Idol (see Figure 6-4) was no longer the big celebrity he used to be. Instead, critics slammed him. Some called the album pretentious for jumping on the cyberculture bandwagon.* His new songs gained little traction on MTV or the radio, and the album flopped. There was also a huge issue with the packaging. The digipaks were so bulky they took up almost three times as much space as a regular CD. This made it hard for record stores to stock it. The Billy Idol *Cyberpunk* album literally did not have the right product/market “fit.”

* “Cyberpunk (album),” Wikipedia, <https://oreil.ly/1SSao>.

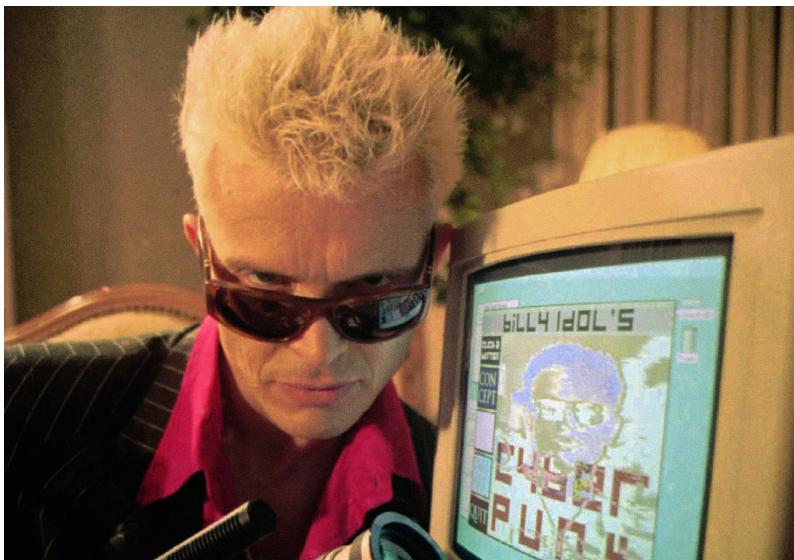


FIGURE 6-4

Billy Idol posing with my interface for his *Cyberpunk* floppy disk (Ed Bailey/AP/Shutterstock)

I was never hired to make an IPK or custom floppy disk project again. However, I did learn some valuable lessons.

Lessons Learned

- Timing is everything. Even if you are first to market with a disruptive innovation, there are no guarantees of success. In the case of electronic publishing, digital media really should be distributed digitally. But in 1993, this wasn't possible. The first web browser for the internet was still being invented.
 - Context is key. My floppy disk magazines were compelling not just because of the new technology. The content on them, which featured anti-Silicon Valley rants and tips on sneaking into expensive tech trade shows, was a symbiotic part of the value innovation. Billy Idol's album marketing content was perceived as more of a gimmick.
 - There are many aspects to building successful digital products. Inventing them is just one small part of the fun. You also need sustainable adoption, scalability, wide distribution, revenue streams, and a team bigger than yourself.
-

Techniques for Value Innovation Discovery

You have already learned that by doing competitive research your team can gain strategic insights into what digital products and services exist in the marketplace of your value proposition. This research isn't just to help your team replicate other products or improve them only marginally. Instead, you want to create a superior and sustainable invention with new value.

To achieve this marketable product, UX strategy requires you to balance business goals with user value. Even though you aren't creating the first electronic magazine or even the first-ever website, your product should still have a unique *something* that engages customers in new and different ways. Your future customers need to *want* to choose your solution over any other because a) it's significantly more efficient than what's currently out there, b) it solves a pain point they didn't know they had, and/or c) it creates an undeniable desire where none existed before. Basically, you open up an uncontested blue-ocean marketspace through value innovation.

The value innovation can manifest itself as a unique feature set. Features are product characteristics that deliver benefits to the user. In many cases, fewer features equals more value. Here are the top four “secret sauce” value innovation patterns of feature sets that I’ve observed in the digital realm:

- The product offers a new mash-up of cherry-picked features from competitors. The hybrid then offers a much better existing alternative for accomplishing a task. (Google Maps + official major city public transportation apps = Citymapper)
- The product provides an innovative “slice” or a twist to a value proposition from existing larger platforms. (Google Maps + crowdsourcing = Waze)
- The product consolidates formerly disparate user experiences and technologies into one elegant, simple, and powerful solution. It becomes the one-stop shop for a user task. (live video broadcasting + online communities + gaming = Twitch)
- The product brings two separate and distinct user segments to the table to negotiate a deal that had not been possible before, thus revolutionizing those users’ worlds. (subletters + travelers = Airbnb)

As you can see, the patterns aren't about building replicas of existing products. Instead, you want to build on existing conceptual models and take those capabilities to the next level. Great ideas are just waiting to be discovered in unexpected, unassuming places. You just need to peruse the internet and real-life experiences like a hunter searching for prey!

Poaching has traditionally been defined as the illegal hunting, killing, or capturing of wild animals, usually associated with land-use rights.* Completely copying an existing product is also illegal and can be considered patent and/or trademark infringement. For instance, Tinder sued Bumble, a similar dating app, for patent infringement, pointing to the swipe cards and mutual selection process, among other things.†

However, there is nothing illegal about poaching features and interaction patterns that are a *common approach* for helping users accomplish a task or goal. You'll be borrowing these kernels from different places and putting them together in a brand-new context to create value innovation.

The four techniques you are about to learn are how to:

- Identify key features
- Take advantage of UX influencers
- Perform a feature comparison
- Storyboard value innovation

Be aware that these techniques are more for your personal or your team's edification. They are not necessarily deliverables that you will present to a client.

IDENTIFY KEY FEATURES

A key feature is a unique benefit that showcases your value innovation. It must exist for your product to have a competitive advantage. The key feature defines the experience that sets your product apart from all others. It might be related to the business model (i.e., Metromile's

* "Poaching," Wikipedia, <https://oreilly/kWgoS>.

† Andrew Liptak, "Tinder's Parent Company Is Suing Bumble for Patent Infringement." *The Verge*, March 18, 2018, <https://oreilly/sSTZo>.

pay-per-mile pricing). A key feature might be an exotic permutation of features, or it can be a single significant capability, as I described in the patterns earlier.

We want to think hard about what we learned from our customer interviews (Chapter 3) and competitive analysis (Chapter 5). To get your idea juices flowing on the key features, ask yourself these questions:

- What will make your provisional personas (hypothesized customers) love this product?
- What is the *aha moment* or part of the user's journey online or offline that makes this product unique?
- What is a major pain point that you are trying to solve that is not currently being solved by competitors?
- What kind of workarounds are your potential customers currently doing to accomplish their goals?
- What is the core benefit for your customers that is derived from the output or manipulation of either your proprietary algorithm and/or data set?
- What is the functionality or page/screen layout that needs to be designed from scratch because there is no reference for it in any other digital product?

Your answers might just lead you to the key features that you'll eventually deliver through a frictionless UX design!

However, be careful about confusing your key features with an entire feature list generated from numerous business requirements. In the complete 1.0 version of a product, it is important to include all the required features for the user to accomplish their goals. As shown in Figure 6-5, feature number 2 talks about an integrated payment system. While the ability to accept payments by credit cards from the users is an important business requirement, it is not a key feature that will differentiate the value proposition.

Airbnb for Weddings – Feature List

#	Feature Name	Functionality Details
1	Search Venue Listings	Ability to do a search query of city or zipcode + ideal date(s) + guest count and get back a result set of relevant venue listings.
2	Payment System	Integration with an established online payment system to allow users to pay for both subscriptions and wedding packages using all major credit cards and PayPal.
3	Photo Gallery	Ability for venue managers to post up to 16 photos of their venue and also for users to be able to browse the photos by swiping/clicking arrows and enlarge individual photos to full screen.
4	FAQ & Ask Center	Area for users to read frequently asked questions and post a question if they can not find the answer.
5	Chatbot	A text chatbot that is globally accessible to the users for answering common questions using artificial intelligence (AI).
6	Registration / Create Account	Ability for users and vendors to quickly create an account with just an email address (to be verified) and password.
7	Real-time Alerts	Notification system for alerting users and vendors about upcoming tasks or confirmations.

FIGURE 6-5

Snippet of the feature list for Airbnb for Weddings 1.0

If you look at Twitter, think about all of the features that are part of the platform: direct messaging, the news feed, retweeting. Yet, the *key feature*, as described by Dan Saffer in his book *Microinteractions*, is “a single interaction: sending a 140-character message.”* This focus on concision and brevity clearly influenced other apps such as Instagram and Snapchat.

So if we think of key features in this way, we should come up with a much shorter and descriptive list. During the competitive research for Airbnb for Weddings, we learned that a major pain point for our target customers was organizing all the vendors. Because weddings are supposed to be one-time events, the learning curve for a spouse-to-be is steep. The Knot’s budget planner is geared to help with this. However, there are over 50 line items (i.e., the wedding cake, bridesmaid gifts, photo booth, etc.) for spouses to track. While the tool explained what each line item meant, it didn’t prescribe alternatives to cut costs. This made it harder for brides to stick to a budget of less than \$30,000.

The lack of affordable options or advice on prioritizing the essential components made the entire endeavor a fool’s errand. Without an up-front understanding of all the moving parts and individual costs,

* Dan Saffer, *Microinteractions* (Sebastopol, CA: O’Reilly, 2013).

the entire event budget can go off the rails. This differentiation around cost-cutting using artificial intelligence and lower-cost alternatives is what the key features need to express (as demonstrated in Figure 6-6).

Airbnb for Weddings – Key Features
<ol style="list-style-type: none">1. A result set of options showing affordable yet amazing wedding venues2. An AI-powered engine that guides the customer seamlessly through wedding preference decision points and then outputs customized wedding packages along with low-cost alternatives3. A coordination system that helps the customers execute the wedding plan with timely reminders for tracking vendors and activities

FIGURE 6-6

The key features for Airbnb for Weddings

A frictionless UX just
doesn't happen if
feature creep runs
rampant. Want
better, not more!

As you can see, it's about imperative outcomes. You want to relentlessly focus your team and resources on the indispensable benefits of the product. It's also more gutsy to take the minimalistic "less is more" approach.

TAKE ADVANTAGE OF UX INFLUENCERS

In short, UX influencers are products that have some functionality that would work well with your value proposition. UX influencers don't even need to be competitors; their value proposition may have no relation to your own. However, their user experiences and features can provide insight into your product's value innovation. The trick is that you need to think outside of the box. Remember how one of our value innovation patterns is mixing and matching disparate feature sets? Sometimes by jamming pieces that don't seem to fit together, you get amazing disruption. You just need to take a leap of faith to see how a noncompetitive product or service could be bent to serve your needs.

I found inspiration in Metromile, the insurance provider discussed in Chapters 1 and 2. That company has absolutely nothing to do with the Airbnb for Weddings value proposition, but the UX around the claims-filing process is quite genius.

Metromile's UX innovation is in how they guide a customer through filing a claim for a car accident. It's a complex and emotional journey with numerous moving parts, and this became the inspiration for our AI-guided wedding planning experience.

The first step was to deconstruct Metromile's claim process by looking at the user flow through the claims funnel screens. We were looking to see what aspects of their mental model paralleled our key feature of guiding the customer through decision points. I am showing a subset of the screens to give you an overview of what their process and design looks like. These are the steps being depicted in the images to follow:

1. Screen 1 (see Figure 6-7) shows the first step where the customer selects the type of incident that just happened to them.
2. Screen 2 (see Figure 6-8) shows the types of details that will need to be captured.
3. Screen 3 (see Figure 6-9) shows the geolocation of the customer and allows them to pinpoint the exact location of the incident.
4. Screen 4 (see Figure 6-10) shows how the customer can indicate where the damage occurred.
5. Screen 5 (see Figure 6-11) shows the visual instructions prompting the customer to take proper photos of the damage to their car.
6. Screen 6 (see Figure 6-12) shows the result set of repair shops that are available based on the customer's desired location for the repair.
7. Screen 7 (see Figure 6-13) shows coverage information and detailed rental car options.
8. Screen 8 (see Figure 6-14) shows confirmation of their scheduled repair and asks the customer if they would like to be picked up from the repair shop.

The structure and presentation of the data illustrates how the AI-powered funnel simplifies the entire journey from when the user loses use of their car to the moment when they get access to a rental.

Take a look at the screen flow from Figures 6-7 to 6-14 to see some Metromile value innovation in action!

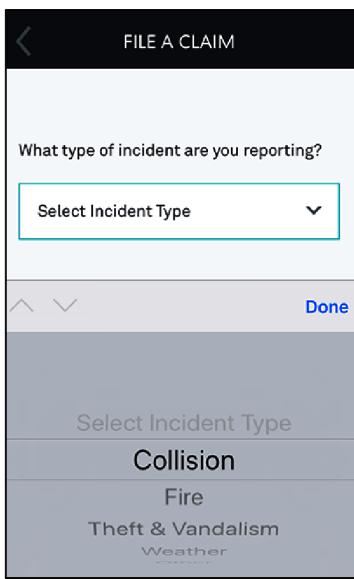


FIGURE 6-7

Customer selects the type of incident

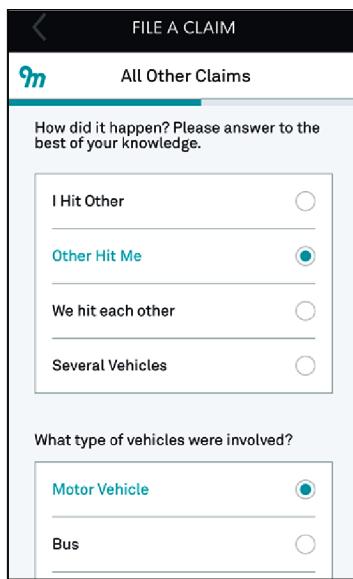


FIGURE 6-8

Customer chooses important details

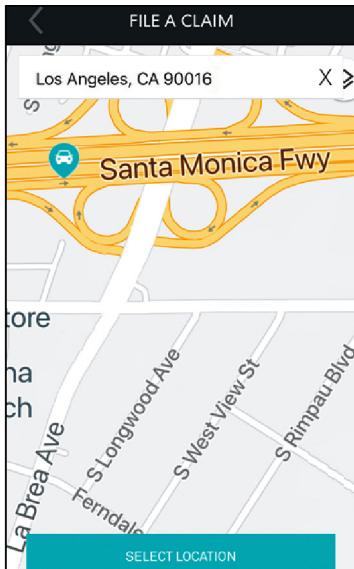


FIGURE 6-9

Customer pinpoints incident location on map

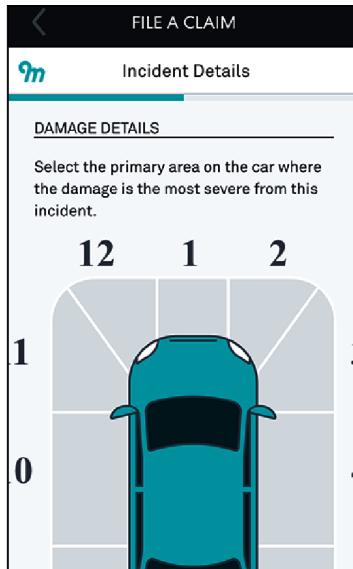


FIGURE 6-10

Customer indicates the areas of damage

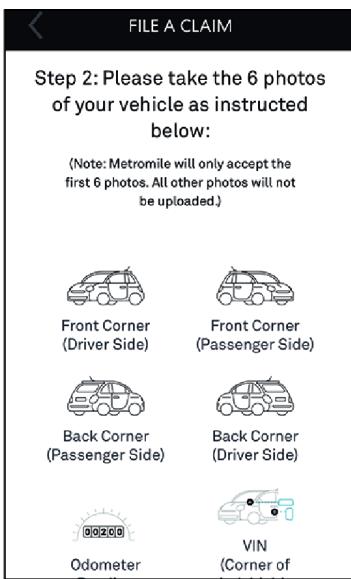


FIGURE 6-11

Customer is prompted to take photos

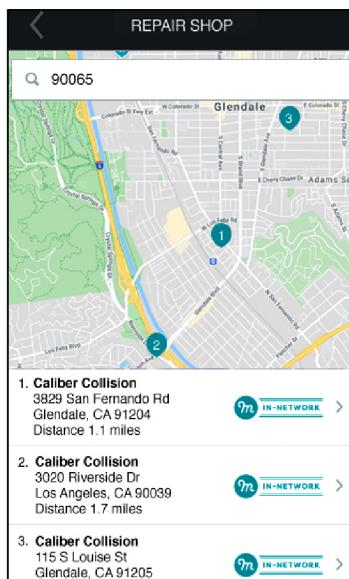


FIGURE 6-12

Customer views a result set of repair shops

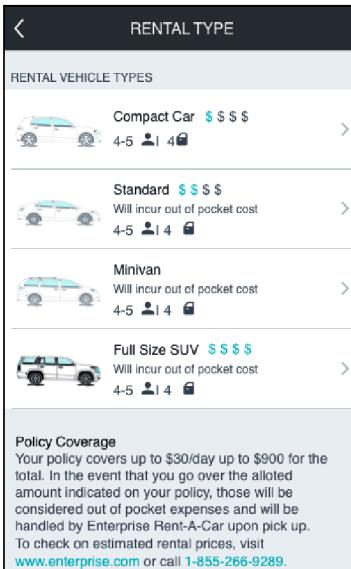


FIGURE 6-13

Customer selects between car rental options

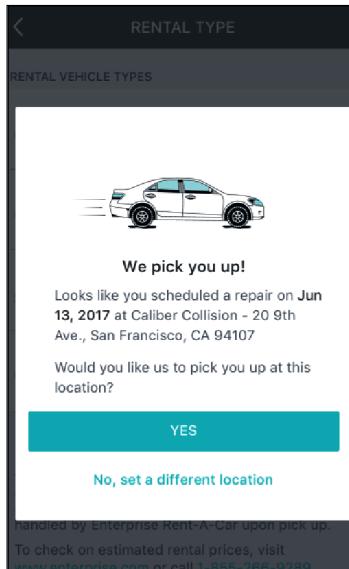


FIGURE 6-14

Customer is prompted with next-step options

Now look over the screens again, imagining how you could adapt them for Airbnb for Weddings. Here's my adaptation:

1. Screen 1 could show the first step where the customer selects the maximum number of guests for the wedding (because this is a major determining factor of venue options).
2. Screen 2 could show the types of major details that need to be captured (e.g., budget and ideal dates).
3. Screen 3 could show a map allowing the customer to pinpoint their desired location for the wedding.
4. Screen 4 n/a
5. Screen 5 n/a
6. Screen 6 could show the result set of wedding venues that are available based on the user's desired location, budget, dates, and number of guests.
7. Screen 7 could show wedding packages that are associated with a selected venue.
8. Screen 8 could show confirmation of the customer's wedding package and ask if they would like to schedule a tour.

You'll catch clues by looking at all the details and figuring out how to use them for your product. Potentially, you can improve on the concept, taking it up a notch on the design ladder. You're aiming to pluck out the best ideas. After you have them, you'll mock them up into a storyboard.

PERFORM A FEATURE COMPARISON

In Chapter 5, I wrote how Steve Blank argues that making a feature comparison document to create a bloated feature list will ultimately sink the ship. However, if you're using it as a tool for discovery without any intention of showing a client, a feature comparison can help you identify opportunities for value innovation. Basically, it takes all the puzzle pieces out of the box, puts them in plain sight on the table, and then allows you to pick out the best pieces and components to build a new interaction pattern. You poach elements and then fuse them together into a frictionless UX.

For instance, several years ago, a multinational conglomerate hired me to design the UX of an ebook reader for the iPhone. Because there were already several readers on the market (Stanza, eReader, Kindle, Nook), I did my competitive research and analysis. I downloaded the reader apps and captured my data. I captured screenshots of many different functions, features, and experiences, such as how to browse for a book, the UI of the home screen, the navigation of the table of contents, and how to highlight and annotate. I documented anything that touched the key features I had to design, and I organized all of my screenshots based on their relationships to one another and took notes on each. Figure 6-15 presents a sample of that document.

The process took at least four hours, but I was able to observe and quantify best practices, lame practices, and clever approaches. It also saved me endless design hours because I didn't have to reinvent the wheel. Better yet, my well-researched evidence helped me deal with a pushy stakeholder who thought that he knew the best way for me to do my job.

When you perform a feature comparison, you should find and document three to five references. This way, you can compare different approaches to common interactions. These comparisons may turn out to be useless or inspirational, but at least you're thinking critically about what is already out there and looking for more optimal ways to deliver value.

Your feature comparison might also take you deeper into research you already have. For example, when you did your competitive research, you captured a variety of existing features. You can return to your notes to hunt for inspiration, as depicted in Figure 6-16.

Using a feature comparison on competitors and UX influencers (i.e., Metromile), you can compare everything from visual design to interaction design to feature sets to how the content is displayed. The objective is to avoid being clueless about your competitive environment. Sometimes, you can capture the necessary iPhone or Android screenshots from the Google Play or Apple App stores, or you can just spend the money on the applications. Charge the client, or pay for it yourself and bill your client for an extra hour. Ultimately, the comparison will save you and your client time and money. It will open your mind, especially after the deep, focused dive you took in Chapters 4 and 5.

Feature Comparison: Add Note and Highlight

	Kindle	Barnes and Nobles	iPad Annotate PDF	Apple Pages	Microsoft Word	
long long friends. Daschle brought it to the Obama campaign. Note were tentatively decided.	Now, with the results of Iowa in, Edwards determined it was time to strike the deal. A little while before taking the stage at the Savery, he summoned Hindery to his hotel suite and gave him his marching orders: "Get aboard of Tom. Hindery considered the timing miserable. Obama	Such sentiments, she gets a moralizing lecture from Marmee or another March sister by way of counterpart.	Baked Pears with Lemon Sauce 7 of 123 Source: Product for Better Health/Caren Winters 4 pears (medium-sized), peeled 1 Tbsp water 2 whole cloves 2 cinnamon sticks (for Lemon Sauce) 3/4 cup skim milk, divided (for Lemon Sauce) 1 cinnamon stick (for Lemon Sauce) 1/2 cup granulated sugar (for Lemon Sauce) 1 Tbsp lemon juice (for Lemon Sauce) This is a copy of the original document. Cut pear in half lengthwise and remove cores. Arrange pears, cut side down, in a shallow baking dish. Cover with water, honey and cloves all over. Cover with foil and refrigerate for 24 hours. Serve warm pears in cap pulled sauce scoop. To reduce sugar content and fat content, add 1/2 cup of low-fat yogurt to the top of each pear. Sprinkle with 1/2 cup granulated sugar and 1/2 cup of medium Nutri-6 & 8 granules, stir thoroughly until sugar is dissolved. Heat & 8 minutes, stirring constantly until mixture is thick. Reduce heat and stir remaining ingredients until well blended. Serve hot and cool to room temperature. Cover and refrigerate 3 hours until thoroughly chilled. Remove cloves which before serving. Nutritional analysis per serving: 160, protein 3g, fiber 5g, calories from fat 45%, cholesterol 39mg, fiber 5g, 28mg	Allows for multiple highlights Allows for multiple notes Does not allow overlapping highlights	Allows for multiple highlights Allows for free form annotation Allows users to remove highlights and annotations Allows for overlapping highlights Allows for multiple notes Does not allow overlapping highlights	Allows for overlapping highlights Allows for multiple notes Does not allow overlapping highlights
Note	Select All	Copy	Maple syrup	Annotations	Annotations	Annotations
Highlight	Phone	Phone	Line	Annotations	Annotations	Annotations
Tentative	Books	Books	Text	Annotations	Annotations	Annotations
Decided	Annotations	Annotations	Annotations	Annotations	Annotations	Annotations

FIGURE 6-15

eBook reader feature comparison of adding a note or highlight

Personalization Features	Community or UGC Features	Competitive Advantage and/or Key Features
After creating a profile, users have access to wedding planning tools providing personalized wedding dashboard, budgeter, registry, guest list, website, vendor message history, etc.	A discussion forum consisting of several wedding-related boards; not well-maintained. Customer reviews displayed for all venues.	The Knot provides comprehensive wedding resources and planning tools meeting the needs of wedding planning in all steps, therefore giving users the incentive to stay with them for every part of wedding planning.
After creating a profile, users can save their favorite listings and venue pricing results, and compare the saved venue pricings. Users can also check their inquiry history and message history with venues.	A well-maintained, active discussion forum featured on the top navigation bar. Customer reviews displayed for venues who receive at least one review.	Wedding Wire provides comprehensive wedding planning tools, which is identical to its sister company The Knot. Compared with its sister company The Knot, it is smaller in scale in terms of user base and vendor base, but has a heavier focus on providing a business management solution for vendors who list their business and advertise on Wedding Wire.

FIGURE 6-16

Features learned from the competitive research

STORYBOARD THE VALUE INNOVATION

Now that you have identified the key features of your product, you will want to stitch them together into a narrative thread to give them context. Storyboards are a great communication tool for both teams and stakeholders because they are visual and linear. They allow you to put your validated persona into a situation where they need your product, and it helps them accomplish their goal.

The storyboarding process has been around since German filmmaker Lotte Reiniger first drew and colored storyboards for her animated feature film *The Adventures of Prince Achmed** in 1926. Since then, they have become versatile tools used for advertising campaigns, comics, films, software design, and various other business processes. They allow directors to communicate to their cinematographers what is the important interaction of each scene from different angles. We can bring this film technique to product design to create close-up angles of crucial functionality (i.e., web searching for a wedding venue) or wide-angle views of the customer doing an activity (i.e., getting married on the beach). These captured moments may or may not be part of the digital experience, but they are definitely part of the entire customer journey.

When you are building a product, storyboards are useful output after the ideation phase. During production, UX teams often create experience or journey maps and distill them into scenarios. Then they convert those

Originality comes out of combining features, data, and interfaces, in new ways.

* “The Adventures of Prince Achmed,” Wikipedia, <https://oreil.ly/gaJ8U>.

into storyboards that can then be used as a precursor to the wireframing phase. This makes sense if you are building the product and need to flesh out all the interactive details of the end-to-end experience. But I am talking about using storyboards for a different purpose. I recommend jumping right into storyboarding the value innovation and business model to ideate around what must be in the prototype to validate the solution.

We are going to knock out a storyboard that truncates the end-to-end experience into approximately six panels, each consisting of a scene and its caption. The goal is to write a narrative that weaves together key features to show the progression from the problem statement to the solution. Now is a good time to reflect on any features, comparisons, or mental models from UX influencers. In my case, this was Metromile's AI-powered claims-filing process.

THREE STEPS TO STORYBOARDING KEY FEATURES

The main goal is for us to rapidly produce something that conveys the value innovation visually. You want to use the format to zero in on the most important components of the experience. Say more with less, and finish with a happy ending, in that the problem for your user is solved. Here is my recommended process for building and presenting a storyboard:

Step 1: Write the captions for your panels (the narrative)

We are writing the captions that will go under each image in the storyboard panels. They should tell a short story focused on the key features. Think through the entire customer journey regardless if it takes 20 minutes like an Uber ride or 2 months like a homestay through Airbnb. Consider both digital interactions and offline experiences. Keep the captions brief—one sentence.

For Airbnb for Weddings, this meant showing how the spouse-to-be experienced their dream wedding coming true rather than showing how account registration or the photo gallery works. Here are the panel captions I defined:

1. Spouse-to-be is having a hard time planning a beautiful yet affordable wedding.
(THIS IS THE PROBLEM OR NEED.)
2. They enter the major details of their ideal wedding.
3. They see a result set of available wedding venues.
(THIS IS KEY FEATURE #1.)
4. They select from a set of customized wedding packages.
(THIS IS KEY FEATURE #2.)
5. They receive timely reminders of tasks that must get done.
(THIS IS KEY FEATURE #3.)
6. The couple has a wonderful wedding without breaking their budget!
(THIS IS THE SOLUTION.)

Step 2: Collect or create your visual imagery

Decide on your visual format. Some people know how to draw or sketch. Others (like me) cannot even draw a meaningful stick figure. What matters is that you choose a process that is fast and easy for you and your team to pull your storyboard together. If you are fast in Photoshop, Keynote, or a wireframing/prototyping tool (i.e., Adobe XD, Figma, or Sketch), just mash up some interface ideas together as graphics. Do not waste time doing detailed wireframing. It's fine to use photos from Google Images or to slightly modify screen grabs from other sites. Create, draw, or gather all of your images, and make certain that they are the same approximate aspect ratio. There is no reason to design an entire user interface at this stage. Instead, zoom in to the components of the interface that best illustrate the concept.

Step 3: Lay out your storyboard on a canvas

Start by adding your numbered captions below each of the panels. Use lowercase text and left-alignment so they are easy to read. Then add all of your images.

Storyboard of Airbnb for Weddings (spouses-to-be experience)

The storyboard illustrates a user journey for planning a wedding using Airbnb's wedding platform. It consists of six panels arranged in two columns:

- Panel 1:** A woman in a kitchen, labeled "1. Spouse-to-be is having a hard time planning a beautiful yet affordable wedding."
- Panel 2:** A screenshot of the Airbnb search interface showing results for a wedding in Los Angeles, CA, with filters for 50 guests and \$10,000 budget, labeled "2. She enters the major details of her ideal wedding."
- Panel 3:** A map of Southern California with pins for Rolling Hills, Malibu Retreat, and Hidden Valley, labeled "3. She sees a result set of available wedding venues."
- Panel 4:** A photograph of a couple at a wedding reception outdoors, labeled "6. The couple has a wonderful wedding without breaking their budget!"
- Panel 5:** A screenshot of a catering service website showing a silver package for \$4000 and a gold package for \$120 per plate, labeled "4. She selects from a set of customized wedding packages."
- Panel 6:** A screenshot of an Airbnb listing for "Catered by Veggie Grill" showing a meal and a price of \$4000, labeled "5. She receives timely reminders of tasks that must get done."

FIGURE 6-11

Storyboard showing value innovation for the spouses-to-be

As shown in Figure 6-17, I used a mix of photos from Google Images, screenshots of form fields from The Knot, slapped-together graphics, and even a screenshot of a fabricated text message to tell the story.

As I mentioned at the beginning of the chapter, storyboards are not necessarily deliverables. There are cases for storyboards in other work environments where they are helpful to pitch ideas. But for now, we are using them to build consensus within our team and then map out the key features in a narrative context to ready ourselves for the prototyping phase.

Business Models, Value Innovation, and Online Dating

Let's take a look at a marketplace that I wish I had less personal experience with, online dating, and three platforms that exemplify it: eHarmony, OkCupid, and Tinder.

eHarmony's business model is based on a monthly subscription service. Its value proposition relies on its matching algorithm, which focuses on the core traits of its clients, such as agreeableness, spirituality, and extroversion. The onboarding requires users to answer hundreds of questions before they are sent a highly curated set of matches. To get more matches, you need to close out the ones you have. There is no way to browse profiles on your own. It even provides tools for a more guided communication process because the platform is designed for "marriage-minded people."

OkCupid is the polar opposite of eHarmony, even though it exists in the same marketplace. Its business model is free to customers, and over time, its revenue stream expanded from paid advertising to the addition of premium subscriptions. But the value proposition is intrinsically wrapped up in a powerful UX by which users can filter matches based on qualitative and quantitative data points. Users can also customize their algorithm by answering highly personalized prompts in a polling feature. The customers are always completely in control of how wide or narrow they cast their nets, while OkCupid reaps the benefits of the extensive user data.

The next crop of online dating innovators were the swipe app products, with the most famous being Tinder. Tinder is all about ease of use and immediacy. Users sign in with a Facebook account, upload a few photos, and maybe write a bio, and they are up and running 15 minutes later. Here's where Tinder's value innovation kicks in: it inverts the historical mental model of dating sites by only allowing users to interact with each other once both parties express mutual interest. With Tinder, users are constantly served up cards that are only curated by distance, age, and gender. That's key feature #1. The user swipes left if they don't like the profile. They swipe right if they do. If both users swipe right, they can send messages to each other in a native message system. Unlike other dating sites, Tinder provides matches within a one-mile radius. That's key feature #2. If you live in a densely populated city like New York or Berlin, you can zoom in on suitors who live within walking distance. So what started as a hookup app for millennials quickly evolved into the go-to place for people of all ages to fall swiftly into an any-length relationship.

Tinder didn't initially launch with an identified revenue stream because its business model first required mass adoption. Once it achieved that, Tinder started experimenting with targeted advertising and paid features offering users more sophisticated functionality. This mobile-only contender now has more than 50 million users and quickly chipped away at OkCupid's value proposition to the point that by 2017, OkCupid majorly changed their functionality of disallowing users to freely message each other unless they both liked each other.

Another popular swipe dating app is Bumble. As mentioned previously, it is quite similar to Tinder. However, its primary distinction is that women have to initiate the first message after a match. This "first move" key feature allows Bumble founders to call it a "feminist Tinder."^{*} It also offers a unique revenue stream called "Lifetime" (shown in Figure 6-18), which gives you access for life to Bumble (or at least until Bumble dies). This seems perfectly targeted at the customer segment who are either serial daters or utter pessimists.

* Edwina Langley, "Bumble Partners with Spotify," *Grazia*, June 16, 2016,
<https://oreil.ly/TKAPK>.

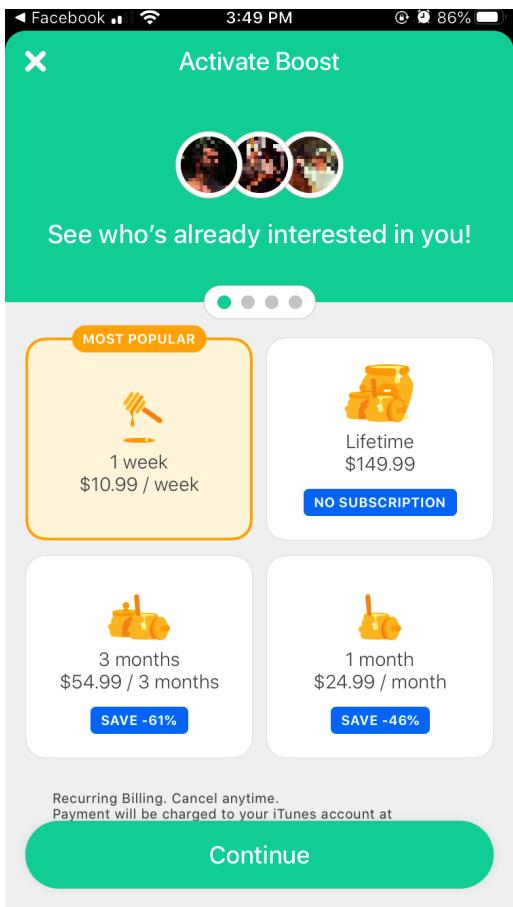


FIGURE 6-18

Lifetime-access pricing scheme on Bumble

Here are the two points that I want to make:

- All of these products offer distinct key features and business models.
- They all have had undeniable success competing in the same industry.

What makes each of them innovative is the unique way of hooking users through a finely tuned permutation of features and business model components.

Recap

In this chapter, we covered a lot of material and concepts related to ideation and connecting ideas to your final objective: articulating your value innovation! I explained how value innovation for digital products is accomplished by focusing on the primary utility of a product. You learned about the importance of determining the key features that embody the value proposition. And how creating a product that is the same or only slightly better than the competition is a waste of your time. I showed you how to find inspiration from UX influencers. You learned ways to pluck features, interaction patterns, and business model ideas from other products and then mash them up to create something new. Finally, you learned how to tell stories with storyboards that will connect your customer's journey with the value innovation.

Now, it's time to leave this fantasyland behind and see if you're innovating in reality by creating prototypes for experiments.

Creating Prototypes for Experiments

*The premature outlay of huge amounts of money in pursuit of the wrong strategy is the thing to avoid. You need to have an experimental mindset.**

—CLAYTON CHRISTENSEN

THE PREMISE OF LEAN STARTUP IS TO GET FEEDBACK EARLY AND OFTEN in order to validate that you are on the right path, which is also the foundation of Tenet 3: Validated User Research. Eric Ries and Steve Blank insist that it's important to run experiments with your product as soon as possible. This "learn fast" philosophy is now visible in enterprise environments, as evidenced by the popularity of the Google Design Sprints process where teams are given five business days to prototype and test potential solutions.

A successful UX strategy needs rapid experimentation to ensure that your product will deliver a solution that people really want. Thus, you need to jump from your storyboard to a minimum viable product (MVP) or prototype of your product that will be used in experiments in the following chapters. This will allow you to learn as soon as possible if your team's latest assumptions are on the right track and will force you to confront the reality of what it would take to make your business model work in the real world. Now, as we prepare to prototype, we're finally juggling all four of the tenets at the same time. (See Figure 7-1.)

* Christian Sarkar, "RIP, Professor Christensen," *Christian Sarkar*, January 25, 2020, <https://oreil.ly/mdLKA>.



FIGURE 7-1

The four tenets of UX strategy

Giving It Your Best Shot

Years before my dad bought the doomed hot dog stand I discussed in Chapter 4, I watched my mom start and run a successful business out of her bedroom closet of our San Fernando Valley home. It was the early 1970s, and my mom, age 35, fell hard for the sport of tennis. This was the decade of tennis in the United States. Its popularity was fueled by the televised championships at Wimbledon as well as the US Open and the French Open with competitors like John Newcombe, Ken Rosewall, and Chris Evert. Backyard tennis courts, country clubs with strong tennis programs, and tournaments popped up all across the country. In sunny Southern California, tennis became an integral part of the upper-middle-class lifestyle. While I attended elementary school, my mom dragged my little brother in his playpen to the local park where she took lessons. She was a natural who developed a powerful slice return, and six months after starting lessons, she won her first ladies double tournament trophy. (See Figure 7-2.)

It didn't take long before my mom began to look beyond the game. One day, while having lunch with her doubles partner, Lea Kramer, inspiration struck. The friends loved all aspects of the sport—on and off the court—but both agreed that it was almost impossible to find reasonably priced tennis clothes. A competitive audit of discount tennis-clothing stores in Los Angeles assured the women they had stumbled on a blue ocean. They found themselves a value proposition.



FIGURE 7-2

Photo of Rona Levy holding her first tennis trophy in 1972

They each had \$500 to invest. Neither of them had any retail experience. Lea knew how to do bookkeeping. My mom had only worked as a legal secretary and never attended college. But my mother was a hustler. She suggested that they experiment with their value proposition by doing a trial run. She reached out to a family friend to see if he could help them acquire some product. He worked in the “schmatta” (rag) business and knew his way around the clothing manufacturers in downtown Los Angeles. He also knew the movie star Elke Sommer, who agreed to sell the new business partners some of her new tennis-clothing line at just over cost. With 4 dresses, 10 pastel skirts, and 12 bras, my mom and Lea just needed to find some customers.

They first started trying to acquire customers at the tennis courts, where they showed off their wares from the trunk of my mom’s Chevy Nova. But people really needed to try things on in a private place. So they obtained local club lists with names and numbers of players they could schmooze into coming over to their homes. I remember coming home from school to find dozens of half-naked women parading around my mom’s bedroom while she urged them to try on different styles. Then, my mom and Lea were invited to a Beverly Hills home to participate in a charity in which they would donate 10 percent of their sales. They trucked their clothes to this wealthy customer segment to sell the product in a “pop-up” dressing room in the mansion’s garage. These experiments eventually made them a rousing success. Their entrepreneurial scheme was even featured as one of the “Ten

Biggest Bargains in L.A.” in *LA Magazine*.^{*} Within their first year, they built up \$10,000 in inventory and a customer base in neighborhoods all over Los Angeles, including Beverly Hills, Ojai, and Pacific Palisades. It was time to scale from their bedroom closets to a brick-and-mortar location on Ventura Boulevard. Love Match Tennis Shop was officially born! (See Figure 7-4.)



FIGURE 7-3

Photo of Lea Kramer (left) and Rona Levy (right) in front of Love Match Tennis Shop in 1974

The business broke even from the start, and my mom and Lea typically reinvested any profits back into purchasing more inventory. They enjoyed the discretionary income and the flexible schedule that let them raise their young children and also play tennis. After three years, they moved the store into a space three times the size in a new shopping mall. Love Match Tennis Shop continued its success, but after almost 10 years, my mom decided to try something different. Lea bought out her share for an amount they both agreed was fair. In accordance with the etiquette demonstrated at the end of a proper tennis match, they shook hands and thus concluded their business partnership.

* Rena LeBlanc, “The Ten Biggest Bargains in L.A.,” *LA Magazine*, July 1973.

Lessons Learned

- You do not need an MBA or even a college education to start a business and for it to be successful. You do need to be a go-getter.
 - Start small. If you have a big idea, figure out a way to prototype it. Manage risk by taking action. Place small bets fast.
 - Stay in a partnership for as long as you have the stamina to pull your weight. But when it's over, leave gracefully and with a handshake.
-

How I Became an Experiment Addict

In early 2011, I was working full time as a remote UX strategy consultant for Cisco Systems. At the same time, I was looking for smaller, get-your-hands-dirty opportunities with local tech startups in Los Angeles. In March, I met Jared Krause—a brash, hilarious, articulate entrepreneur, and a fellow NYU alumnus to boot. He had big plans to make a groundbreaking online platform that enabled people to easily trade all types of goods and services, and he had also lined up initial private investment. Yes, there were other bartering/trading platforms out there, but none of them leveraged artificial intelligence by matching users based on common interests and geolocation.

I started working on the project immediately while at the same time juggling my full-time enterprise job, a divorce, and my son starting kindergarten. About six months later, we had completed the business requirements, a project roadmap, information architecture, and about 50% of the UX wireframes. Our value proposition was basically that it would be the “OkCupid for bartering,” or in Jared’s words, “a dating site for your shit.” The big idea was that customers could make lists of all the things they had to offer and all the things they wanted. Then the backend algorithm would match up the appropriate people. The project was ambitious and complicated.

Then one day, at the beginning of a wireframe review call, Jared told me I had to stop working on the UX. Instead, I had to go read the *New York Times* bestselling book *The Lean Startup* by Eric Ries.* Over two days I listened to the audio version while hiking the Arroyo Seco trails in Pasadena.

One of the things that really struck me was how Ries's simple Build-Measure-Learn feedback loop (Figure 7-4) applied to product strategy. The loop begins with an idea that can be quickly built into one or more minimum viable products (MVPs), as discussed in Chapter 2. This product, when shown to potential customers, must generate measurable data in the form of feedback. You then learn from that feedback and continue to make the idea better.

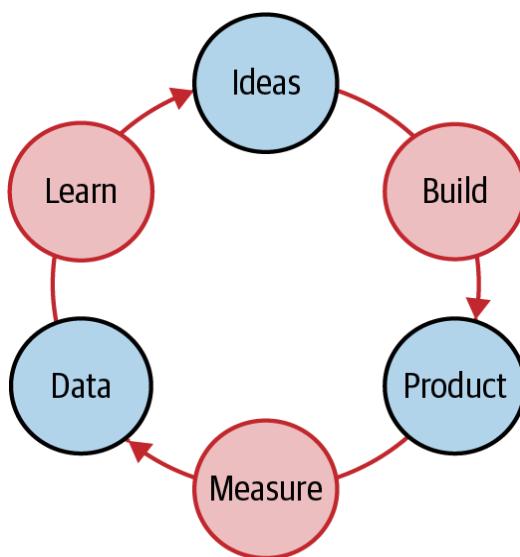


FIGURE 7-4

The Build-Measure-Learn feedback loop from the book *Lean Startup* by Eric Ries

The principles of *Lean Startup* jolted me awake to two scary realities. The first was that Jared and my course of action for the product drastically needed to change. This meant I had to throw out or put aside a lot of hard UX work. The second reality was that my practice of UX strategy and design methodology based on the traditional waterfall software development model was now outdated. The rules had completely changed:

* Eric Ries, *Lean Startup* (New York: Harper Business, 2011).

- No more working on UX strategy phases geared toward a big 1.0 launch. Now I needed to plan for making small incremental prereleases (MVPs) that would articulate different aspects of the product strategy.
- No more working in isolation and then just handing off documentation to the team (stakeholders, developers, designers). Now, I needed to continuously collaborate and strategize with them to ensure that the product was released as quickly as possible.
- No more crossing my fingers and hoping that customers would love the product after it was built. Now, I needed to insist that my clients let me conduct experiments along the way to test the key features that were the essence of the value proposition.

Changing our process mid-project was very stressful. In addition, Jared's investors were getting frustrated and wanted real evidence of a solid rationale for the potential success of our product. The big question we kept getting was "Why would someone want to wait for a worthwhile trade for their old laptop when they could just sell it on Craigslist and then spend the cash on whatever they wanted?" Jared and I needed to begin experimenting immediately with an MVP to show that our utopian vision wasn't from Planet Utopia.

The challenge was to isolate a slice of the UX that would truly test the value proposition. Jared was confident that his own unconventional marketing techniques would drive enough people to the landing page. Still, we needed a place for them to land that would make immediate sense and not feel like an empty shopping mall.

The first experiment was to test whether trades were more likely to happen if the person who had something to trade was open to a variety of commensurable offers or if they wanted one specific item in exchange. We needed to make trades happen quickly to learn this. That was when Jared came up with the notion to spotlight one trade per day and make it for something highly attractive to our presumed customer segment. This would increase the chances of getting more bids for the trade items and maybe even a successful transaction.

The most difficult part to determine was how the prototype would enable a rudimentary trade on the frontend without requiring the developers to do any backend engineering with code or a database. It required us to focus on the exact value innovation, which for TradeYa

was the capability of being able to get something you wanted without having to pay money for it. We needed people to want to engage in the act of trading with strangers. After intense discussion, Jared and I decided that if Craigslist had done perfectly fine without requiring users to even have accounts, then that could be true for our TradeYa prototype. As a result, I chopped out all the personalization and transactional wireframes—no user profiles, shopping carts, or user reviews. The MVP simply didn't need it.

Over one weekend, Jared and I sat side by side and knocked out all of the necessary UX documentation for the developers. By the following Wednesday, “Trade of the Day” was born.

Figure 7-5 depicts the site maps of the original TradeYa vision and the first MVP after going lean.

Figure 7-6 shows the before and after of the homepage wireframes.

It's pretty clear from just a quick glance at the UX documentation how much the product went from fat to lean. One of the main reasons why we were able to achieve this is that Jared manually facilitated each trade. He helped solidify swap logistics over email between parties, coordinated times for in-person exchanges, and even acted as a mediator—like showing up in front of a 7-Eleven—to ensure everything went smoothly.

But then Jared made the experiment more intense. He insisted that everybody on the team—investors, developers, designers...all of us—had to test this by coming up with goods or services to trade until each of us had completed a successful trade. I had not planned on getting my hands *this* dirty! I didn't have any old couches or personal computers that I wanted (or needed) to trade. So I chose to trade my UX skills. (See Figure 7-7.) My trade-of-the-day offer was two hours of my UX consulting time over Skype. I was open to offers but was also specifically looking for someone who could help me with the highly specific task of converting some old Flash animations into YouTube videos.

TradeYa 1.0 - Before Lean (2011)

TradeYa MVP - After Lean (2012)

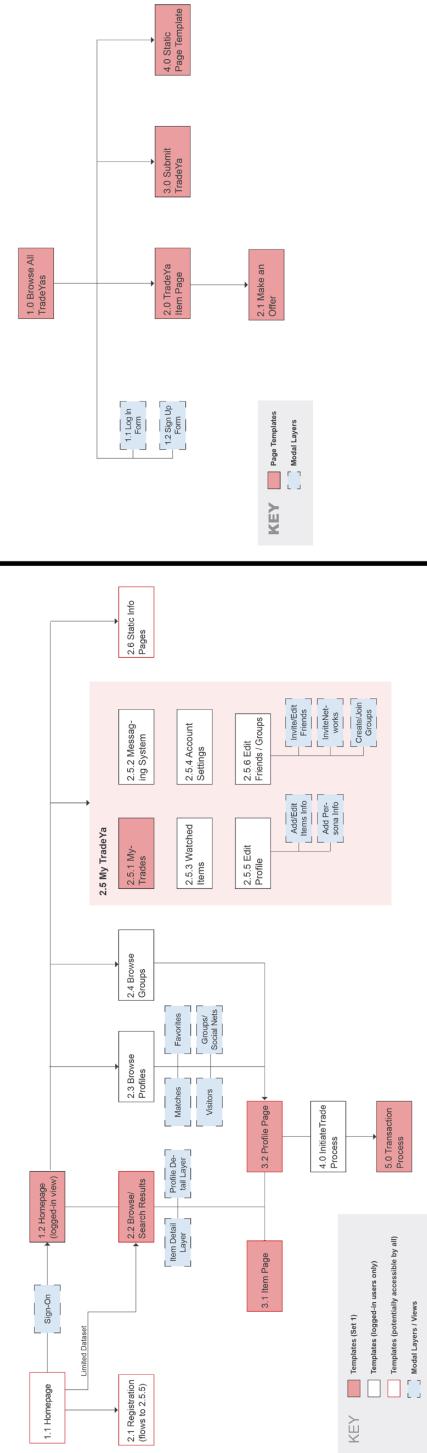


FIGURE 7-5
TradeYa's site map before and after we went lean

TradeYa - Before Lean (2011)

The screenshot shows the TradeYa homepage from 2011. At the top, there's a navigation bar with links for 'Help / My Profile', 'Log Out', and 'I Hearths wants'. Below the navigation, there's a search bar and a 'Find' button. The main content area includes:

- Start Trading!**: A section with a video of a person trading an Apple TV and a call-to-action 'MAKE AN OFFER'.
- Friends on Facebook**: A section showing user profiles and a link to 'Add Friends'.
- Recently Viewed**: A grid of items including a lamp, a trailer, and a sofa.
- Just Added Near You (change location)**: A grid of items including a lamp, a sofa, and a bookcase.
- Featured Item Question**: A section asking 'How often do you hope to trade your Audi car?' with options: 'This week', 'This month', 'This year', and 'Whenever'.

TradeYa - After Lean (2012)

The screenshot shows the TradeYa homepage from 2012, featuring a simplified design. At the top, there's a navigation bar with links for 'Help / My Profile', 'Log Out', and 'I Hearths wants'. Below the navigation, there's a search bar and a 'Find' button. The main content area includes:

- Start Trading!**: A section with a video of a person trading an Apple TV and a call-to-action 'MAKE AN OFFER'.
- Offers for 'Jane's': Brand new Apple TV in the box'**: A section showing offers for a new Apple TV.
- Ref Storckling Package**: A section with a video of a person working on a project and a call-to-action 'Get Started'.
- Grow your business**: A section with a video of a person working on a laptop and a call-to-action 'Get Started'.
- Video Studio + Business Consulting**: A section with a video of a person working on a laptop and a call-to-action 'Get Started'.

FIGURE 7-6

TradeYa's homepage before and after we went lean

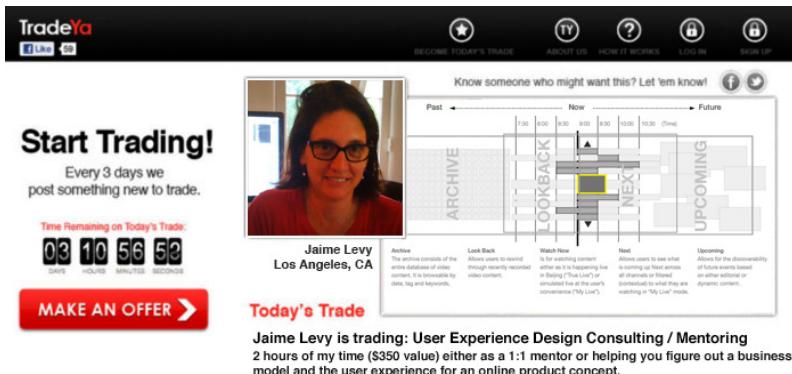


FIGURE 7-7

My own trade of the day on TradeYa

It was scary yet fun. Moreover, it was truly like our original value proposition: a dating site for your shit. Within 24 hours, I accepted a trade offer from Edward, who was a digital consultant out of Portland. This was when I wholeheartedly connected the dots. I had firsthand experience that the value proposition and UX weren't quite like eBay; rather, they were much closer to OkCupid. The trade was successful. Edward put my animated cartoon series on YouTube, and I schooled him on how to begin obtaining UX work in Portland. I even hooked him up with a job interview. The entire user journey was pretty magical. Our trade was worth more than paper money because we both got so much out of the exchange of our traded skills without either of us having to file a W-9. The investors liked what they saw, and so we were able to keep experimenting with the ultimate goal of validating the value proposition.

Defining Experiments Today

The TradeYa project and working with Jared gave me a really good dose of the “experimental mindset” that Clayton Christensen talks about in the opening quote of this chapter. I loved that business ideas could be tested with minimal coding required. There was even a punk rock ethos to it where you take a raw concept and blast it out there to see how people react. I also discovered that running split test experiments was a legitimate way to shut down arguments with stakeholders or team members by simply suggesting, “Maybe I’m right, or maybe you’re right. Let’s test both ideas to find out!”

But let's take a step back and remind ourselves exactly what an experiment is. The purpose of an experiment is to test a hypothesis in order to accept or reject it based on measurable results. Experiments are diverse and can be run in a laboratory or in the field. They can be run with or without a control group for making comparisons. They can be big or small depending on the budget. No matter what type though, experiments are all about testing a variable. This variable is any item, factor, or condition that you can control or change. In observing the variables in the experiments, you look for a cause-and-effect relationship, and you conduct the experiment for a finite amount of time because you want to measure and empirically capture observable evidence about what happens when the variable changes.

That probably sounds really science-y. So let's bring it back to Tenet 1: Business Strategy and Tenet 3: Validated User Research. An experiment for a value proposition starts with a hypothesis. People often get confused about the difference between an assumption and a hypothesis. If you remember from Chapter 3, an assumption is something that you suppose to be true, such as "Most millennials in Brooklyn love vegan ice cream." A hypothesis is also something that you suppose to be true, but it is stated in an unambiguous way so that it can be tested. Or as Eric Ries explains in *The Leader's Guide*, "A falsifiable hypothesis is a prediction that is concrete and specific enough that logically speaking it could be false,"* for example, "Over 75% of millennials in Brooklyn love vegan ice cream because they believe it is better for the environment." We can test this hypothesis by asking 100 millennial vegan ice cream eaters in Brooklyn why they love it. Once you have a hypothesis, then it's time to think of the most economical and efficient method for acquiring data that will prove or disprove your theory.

EXPERIMENT BUZZWORD TERMINOLOGY

Many types of experiments get buzzword labels slapped on them, and people are constantly making up terms for things that often already have a name. Sometimes there is a little bit of variation in the meaning, which only causes further confusion. But some terms have had staying power, and I've compiled a list here of those that relate to conducting value proposition experiments:

* Eric Ries, *The Leader's Guide* (Audible Originals, 2019).

Concierge

This is a French word that essentially means doorkeeper. The job of a concierge in a hotel or residential complex is to ensure that customers (tenants, guests, whoever) have a frictionless experience from the moment they enter the building. Concierge MVPs or prototypes attempt to simulate an aspect of the customer's experience without the interface. They also aim to do it with as little friction as possible while the user interacts with the prototype. When you don't have the time or resources to build a backend, replacing it with a human element is the way to go. This is exactly what Jared did when he manually concierged transactions on TradeYa.

Wizard of Oz

Digital product simulation actually dates back to a 1983 artificial intelligence experiment done at IBM by J. F. Kelley. Kelley described what he called the *OZ Paradigm* as “an experimental simulation in which participants are given the impression that they are interacting with a program that understands English as well as another human would. The experimenter, acting as the “Wizard,” surreptitiously intercepts communications between participant and program, supplying answers and new inputs as needed.”* When testing product concepts, participants interact with a product that they believe to be fully functional but in reality is controlled by an unseen human operator. Unlike concierge, customers don’t know that a human is in the loop.

Smoke test

This method determines if there is sufficient customer demand for a given value proposition so product makers can justify building the actual product or service. The term comes from hardware development, when engineers would check to see if smoke would rise from a circuit board after powering it on for the first time. Basically, the smoke test is for finding obvious inadequacies in a product or product concept in order to avoid releasing something that is doomed to fail. What is unique about smoke tests is that they do not simulate the full customer experience. They

* J. F. Kelley, “An Empirical Methodology for Writing User-Friendly Natural Language Computer Applications,” *Proceedings of ACM SIG-CHI ’83 Human Factors in Computing Systems*, Boston, December 12–15, 1983.

gauge customer interest by measuring how many times a button is clicked or by collecting sign-up information, but this leads the customer nowhere or to a “coming soon” page. The customer does not receive the actual product or service. An example of a smoke test is a landing page experiment, which you will see in Chapter 9.

Explainer video

This short-format video or animation explains the benefits of the product. You can find them on company landing pages, YouTube, or crowd-funding platforms such as Kickstarter and Indiegogo. They are meant to draw investors, raise funds, test product appeal, and acquire users. Successful buy-in is indicated by the number of potential customers who provide their email address or other personal information.

Mechanical Turk

In 1770, inventor Wolfgang von Kempelen performed a demonstration of his automaton chess-playing machine for the empress of Austria.* The Mechanical Turk, or “The Turk,” toured Europe for decades playing chess and defeating challengers, including statesmen like Napoleon Bonaparte and Benjamin Franklin. What users didn’t know was there actually was a chess master hidden inside the machine. Users were playing *him* rather than *it*. Today, when someone says they are mechanical-turking a product, it typically means they are building a frontend with a human-powered backend to manually simulate a complex digital product. They could do this using Amazon’s Mechanical Turk, which gives them access to a diverse and scalable workforce for outsourcing microtasks. It’s like a crowdsourced version of Wizard of Oz.

Rapid Prototyping for Value Proposition Validation

Experiments for testing value propositions are not meant to take a long time, and you don’t need a fully functional website or app to do them. That’s where prototypes come in. There are lots of expert or

* “The Turk,” Wikipedia, <https://oreil.ly/LZljz>.

pseudo-expert opinions on prototyping. What I'm sharing with you is what has worked for me over the last 30 years of using prototypes for testing product strategy. To begin, let's unpack some foundational concepts.

According to the *Oxford English Dictionary*, the word *prototype* is almost 500 years old and originates from the Latin *prototypum*.^{*} The definition of it has evolved with technological advances to mean “a preliminary version made in small numbers for evaluation, or from which improved or modified versions may be developed.”

A digital prototype is a proof of concept that allows you to test it before fully building the solution. It should familiarize the user with the ultimate experience you are trying to create. It does not necessarily need to be animated or interactive. It can be produced cheaply, quickly, expensively, or slowly. It can be used for different purposes, such as getting executive buy-in or getting feedback from future customers.

Prototypes can be used to test the general feasibility or usability of a product. They allow us to iterate, review, and refine big and small ideas. For more information on prototyping, check out *Prototyping for Designers* by Kathryn McElroy.[†]

WHAT IS RAPID PROTOTYPING?

The term *rapid prototyping* comes from the manufacturing industry. In manufacturing, rapid prototyping is used to test a product or part before manufacturing it in larger quantities. Similarly, digital product designers have adopted rapid prototyping as a quick and cost-effective way to build and test a working version of their product.

The “rapid” part of rapid prototyping implies this type of prototyping is fast. The timescale of building a prototype rapidly—i.e., days versus weeks versus months—is really driven by two things: the scope of the project and the size of the team. Rapid prototypes do not necessarily require coding. The key is to leverage an easy-to-learn prototyping tool so your time

The prototype is not the final product, although it might inform, inspire, or annoy the future designers of it.

* OED Online, s.v. “prototype,” accessed January 14, 2021, <https://oreil.ly/Kjztk>.

† Kathryn McElroy, *Prototyping for Designers* (Sebastopol, CA: O'Reilly, 2017).

Some Popular Tools for Rapid Prototyping

Please note that this list is focused on inexpensive-to-free tools that incorporate wireframing, are easy to learn, and are commonly used by agencies and enterprises.

Adobe XD (www.adobe.com/products/xd.html)

A collaborative tool that helps you and your team create high-fidelity designs for websites, mobile apps, voice interfaces, games, and more. It has a slew of UI kits available online to help you get started.

Figma (www.figma.com)

A desktop app and browser-based design, prototyping, and code-generating platform for collaborating online without having to stop to install, save, or export. It leverages vector networks to allow for the easy creation of complex icons and designs.

Sketch (www.sketch.com)

A vector-based design tool for macOS with thousands of toolkits and plug-ins available online. You can use it to create high-fidelity mockups, build your prototype, collaborate with your team, and share your work with customers.

InVision Cloud (www.invisionapp.com)

A tool for turning existing high-fidelity comps into a prototype. You can upload the images, link them together with hotspots, and easily share them on a mobile device for validation with customers. It's also easy to capture comments and versions.

Balsamiq (<https://balsamiq.com>)

A rapid low-fidelity wireframing tool that reproduces the experience of sketching on a notepad or whiteboard. It comes with hundreds of interaction patterns and icons for quickly creating mockup websites, desktop apps, and mobile apps.

is spent making the prototype and not mastering a new tool. Also, having a storyboard (from Chapter 6) and a prototype outline, which I'll discuss soon, is critical so that you can plan out your time and focus on prototyping the key features. See the sidebar for a list of tools that are popular as of 2021 for prototyping.

WHAT IS RAPID PROTOTYPING FOR VALUE PROPOSITION VALIDATION?

As discussed in Chapter 3, a value proposition's primary purpose is to communicate the benefits that the customer can expect from your offering. For instance, the value proposition of Airbnb is "an online community marketplace for people to list, discover, and book accommodations around the world." The founders validated their initial value proposition when they used a bare-bones website to rent out air mattresses in their own apartment to see if it was something people would find valuable.

This is why, for product strategy purposes, having a prototype focus on the key features of the value proposition is essential. We are trying to learn if the functionality that we believe makes our product unique provides true value to potential customers. This is far more important than insights about if the design is pretty or even if the product is easy to use. Because neither of those things will matter if the target customer expresses no need for the product after viewing the prototype. As such, these are the critical questions that we need our prototype to answer:

1. Does the solution solve the problem or major pain points that the target customer expressed?
2. Does the target customer find the key features valuable?
3. Would the target customer pay for the product or use it in a way that can be monetized?

The answers to questions 1 and 2 help us validate our value proposition. The answer to question 3 will help us validate our business model. This process is sometimes called *concept validation* or *business model testing*. It relies on conducting experiments using an MVP that is realistic enough to get accurate customer feedback.

This is why I strongly advocate the use of high-fidelity prototypes for informing product strategy. *Fidelity* refers to the level of visual details and functionality. The problem with a low-fidelity prototype is that it requires a lot of imagination from experiment participants. If you leave out important details such as realistic content, you risk some participants' disapproval because they cannot understand what they are seeing.

FOUR STEPS TO RAPIDLY PROTOTYPING A VALUE PROPOSITION

In Chapter 6, I talk about the reasons you need to focus on key features and figure out a narrative from the user's perspective. Now, you'll use your storyboard as the starting point for creating a prototype that can be used for experiments. We'll then use this prototype for qualitative and quantitative research studies. In Chapter 8, we will share the prototype with online participants via videoconferencing platforms. In Chapter 9, we will use screens from the prototype to develop artwork for landing page experiments.

If you are not a seasoned designer, you can still learn to rapid prototype. I have been teaching a graduate-level UX strategy course for engineering students at the University of Southern California (USC) for years. Even students with zero design experience can still make great prototypes. In fact, I am going to use some of their work in the next two chapters to demonstrate how rapid prototypes, even those created in less than 100 hours, can be used for user research experiments.

Meet one of my students, Jessica, a budding UX rockstar! Her value proposition is a mobile application for booking autonomous flying shuttles. Yes, think *Blade Runner* meets Citymapper. At this point in her process, Jessica had validated her customer segment of full-time 20-to-30-something LA commuters during her customer discovery. She did her competitive research and analysis and learned that Uber Air was her biggest competitor. In Figure 7-8, you can see Jessica's hand-drawn storyboard that exemplifies how customers would benefit from her solution.

For this process to
be rapid, we don't
want to waste
time simulating
something of little
conceptual value.

As depicted, Jessica's storyboard shows someone trying to get to work during rush hour. She then hits each of her key features—booking combinations of autonomous air shuttles and other types of transportation and using QR codes to quickly and easily board. Drawing out these interactions helped Jessica quickly

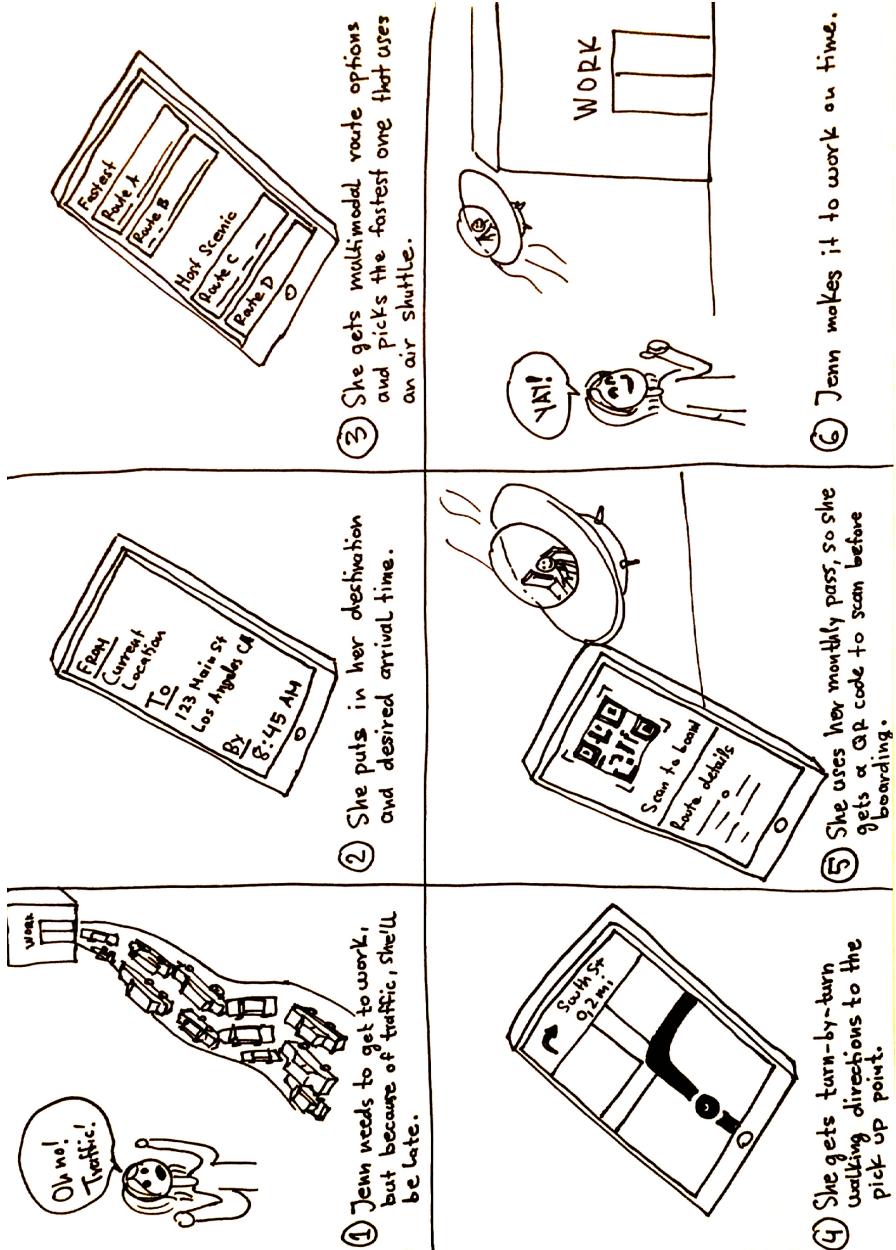


FIGURE 7-8

Jessica's hand-drawn storyboard

understand what kind of screens she will need without even turning on a computer. Jessica used this storyboard as the starting point for creating her prototype.

To do that, she followed these four steps, which I will walk you through in detail:

1. Write a prototype outline.
2. Get started with your prototype tool, and organize your resources.
3. Build out all of the screens of your prototype.
4. Make it flow.

So roll up your sleeves because it's time to get *your* hands dirty.

Step 1: Write a prototype outline

This first step is to expand our storyboard narrative. Take a look at the storyboard captions. Then copy over the ones that describe actions taking place on your interfaces. Chances are there are several functions or entire interfaces that need to be created in order to get from one panel to the next. So don't be surprised if you need to break apart the action into several screens. The narrative may be linear or nonlinear depending on what your key features are and whether or not they are always experienced consecutively. It is important to show screens that will allow us to ask decisive questions about our features, value proposition, and business model.

Here is the general framework of prototype screens. The order and amount of the transitional screens is flexible based on how many key features you need to show.

Setup

Typically the landing page, home screen, or user dashboard.

Key Feature 1

Typically demonstrated in one to three screens and shows the crucial interactions of the value innovation.

Key Feature 2

Typically demonstrated in one to three screens and shows the crucial interactions of the value innovation.

Result

Screen(s) that expresses the outcome or benefit of how the product solves the user's problem.

Pricing strategy (if applicable)

This shows the cost of the app, monthly fees, package costs, etc. If the revenue stream of the product is advertising, then you should consider putting examples of how ads might look on the appropriate prototype screens.

Using this framework, now write an outline of the user interactions, and take a stab at naming the probable screen or page where the action will occur. The outline will determine the scope of your prototype in terms of how many screens will be required and what original content needs to be created. For those who are familiar with user flows, this is a similar concept; we are describing a user's journey through our product. But it's different because the prototype will have limited functionality, and we may need to build a truncated pathway through our key features.

Here is Jessica's prototype outline:

1. Home: User opens the app and is prompted to input their destination.
2. Destination Details: User inputs their work address and that they need to arrive by 8:45 A.M. before clicking "Check Routes."
3. Route Options: User is shown the fastest routes, most scenic routes, and other routes that will get them to their destination in time. They tap the fastest route.
4. Route Overview: User is shown an overview of their trip depicting each segment of walking, flying, or using other public transportation, along with pricing information. They tap "Go."
5. Walking Directions: User is given turn-by-turn walking directions to their nearest station.
6. Air Pickup: User is given a detailed description of how to get to the air shuttle pickup point.
7. Air Payment: User already has a monthly pass, so they opt to use that on this screen by tapping "Use Your Monthly Pass."

8. Boarding Directions: User uses QR code at scanner to get on board the next arriving air shuttle. User then tracks their current position and is reminded when to get off.
9. Bus Directions: User gets off at an air stop near a bus station. After following walking instructions to the appropriate bus stop, they are given info about the next bus and when and where they should get off.

Step 2: Get started with your prototype tool, and organize your resources

Using your prototyping tool of choice, create blank artboards for each screen in the outline. Use the proper screen ratio for the device you intend to show the prototype on (desktop, tablet, or mobile). Jessica chose her screen ratio to fit a mobile phone for commuters who would be using the app on the go.

Search online for free UI kits of elements or even entire screens to speed up your prototyping. Find ones that make use of established UX and UI design patterns so your prototype will look more professional and realistic. With your prototype outline in mind, look through each UI kit and note any elements or screens that may be helpful to you. Download as many relevant assets as possible. Organize them for easy access when you get to Step 3.

Jessica found some cool UI kits, including ones that dealt specifically with booking transportation (see Figure 7-9).

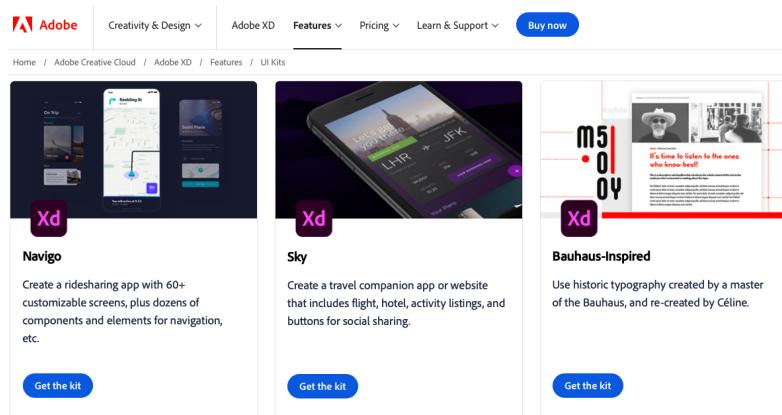


FIGURE 7-9

A sample of Adobe XD UI kits that Jessica used

Step 3: Build out all of the screens of your prototype

For each artboard screen, place any UI elements that work from your collected UI kits. Next, arrange them and add in any graphical elements to ensure your user is able to accomplish their action as described in your prototype outline. Adjust the colors, formatting, and fonts to make the design feel cohesive. Check your design against relevant screens and pages from competitors or UX influencers so you don't leave out anything important. Always preview the screen on your device of choice to make certain the graphics and text sizes are proportionally correct. Then proceed to the next screen until all the screens in your outline are complete (Figure 7-10).

After dropping in the elements from her UI kits, Jessica added a few extra touches and filled in missing content, such as maps from Google Earth. She also made the UI elements look less generic by matching them to her chosen color scheme and fonts.

Step 4: Make it flow

Once you have all your screens designed, it's time to consider what animations or interactivity is necessary for people to understand the value proposition. Animation can range from simple transitions between screens and modals to complex simulations of an ecommerce transaction. It may be that you simply show the before and after of a key feature in order for your customer to get it. It also may be the case that you don't need to animate anything.

The same is true for interactivity. I have spent months building fully functional prototypes to show stakeholders so that they could see all of the possible features in order to get buy-in. But for testing a value proposition on customers, often just allowing them to swipe from one screen to the next will get the job done. I tell my students to always make the logo take the user back to the first screen in case you need to start the demo over. This can also be useful for telling nonlinear narratives where the user needs to go back to a home screen to access the next key feature. Be sure to publish your prototype to the cloud and test it as you go to verify that the user experience flows smoothly. Another rapid prototyping shortcut is to place a big fat hotspot over the rest of the screen to make the demo go forward. Look, Mom, no programming required (see Figure 7-11)!

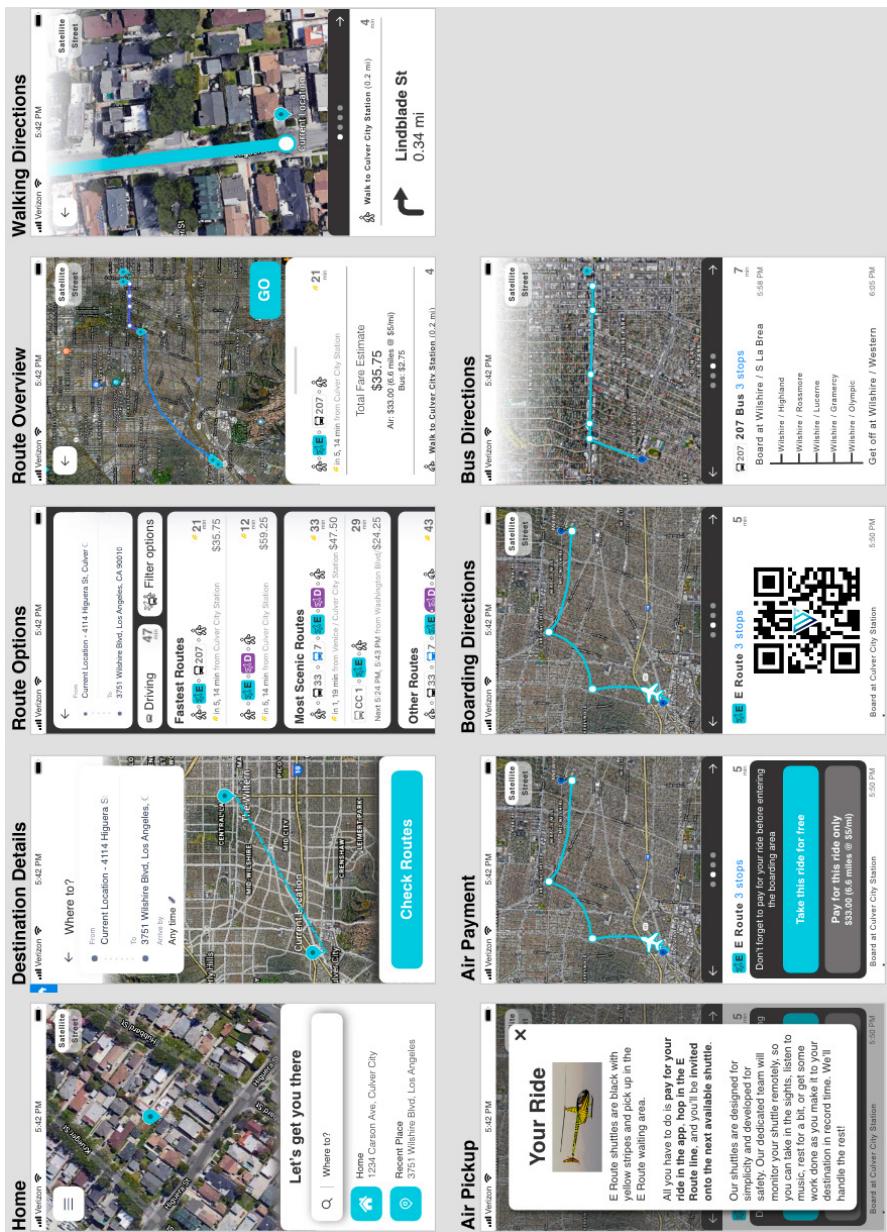


FIGURE 7-10

Jessica's artboards for her prototype screens

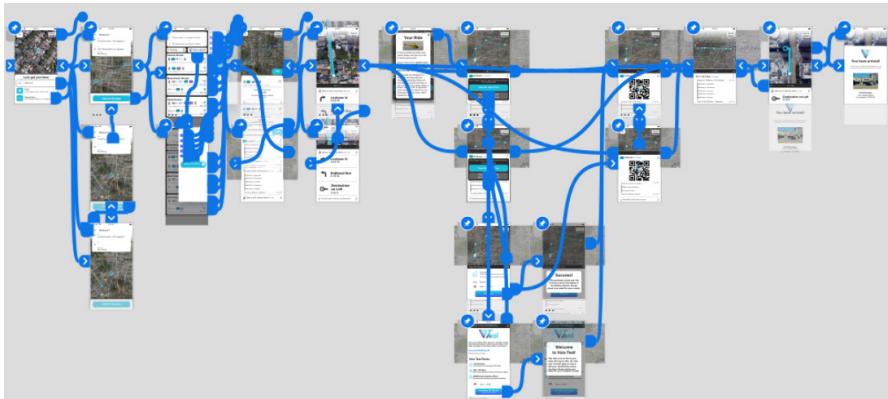


FIGURE 7-11

Jessica's linked prototype reference (see the full prototype at <https://adobe.ly/2XcL3OR>)

Congratulations, you and Jessica finished your prototypes! It didn't take thousands of dollars or weeks to complete or a team of developers. The next step is to make sure it's easily accessible when sharing it with a potential customer. This might happen in person on a tablet or computer, or it could happen online, as you will see in the next chapter.

Recap

The moral of this chapter is: don't burn your time, money, or efforts on a product that has not been tested and validated with target customers. Do something to concierge the experience, even if it means selling stuff out of your own bedroom closet.

In Chapter 8, you will use your prototype to engage your target users in an online user research experiment and collect qualitative feedback. In Chapter 9, you will use screens from your prototype in a landing page experiment to capture quantitative data.

Conducting Online User Research

*Take a chance and step outside.
Lose some sleep and say you tried.
Meet frustration face to face.
A point of view creates more waves.**

—JOY DIVISION

BY RUNNING RAPID EXPERIMENTS, YOU CAN IMMEDIATELY VALIDATE hypotheses about your value proposition and business model from the users themselves. This chapter focuses on Tenet 3: Validated User Research (Figure 8-1) and how to run a qualitative research study online. You will use the prototype you made in Chapter 7 to get closer to the truth with an open heart and mind to really hear what your potential customers feel and think about your product. Through this structured form of user research, you will harvest actionable takeaways.



FIGURE 8-1

Tenet 3: Validated User Research

* Joy Division, “Autosuggestion,” *Earcom 2: Contradiction* (Fast Product, 1979).

March 2020 Timeline: Coping with Insanity

The following timeline (Figures 8-2 to 8-4) depicts the dramatic events as they unfolded at the dawn of the COVID-19 pandemic in the USA. Among other things, the experience forced me to quickly adapt my practice of conducting user research so that my students could stay safe.

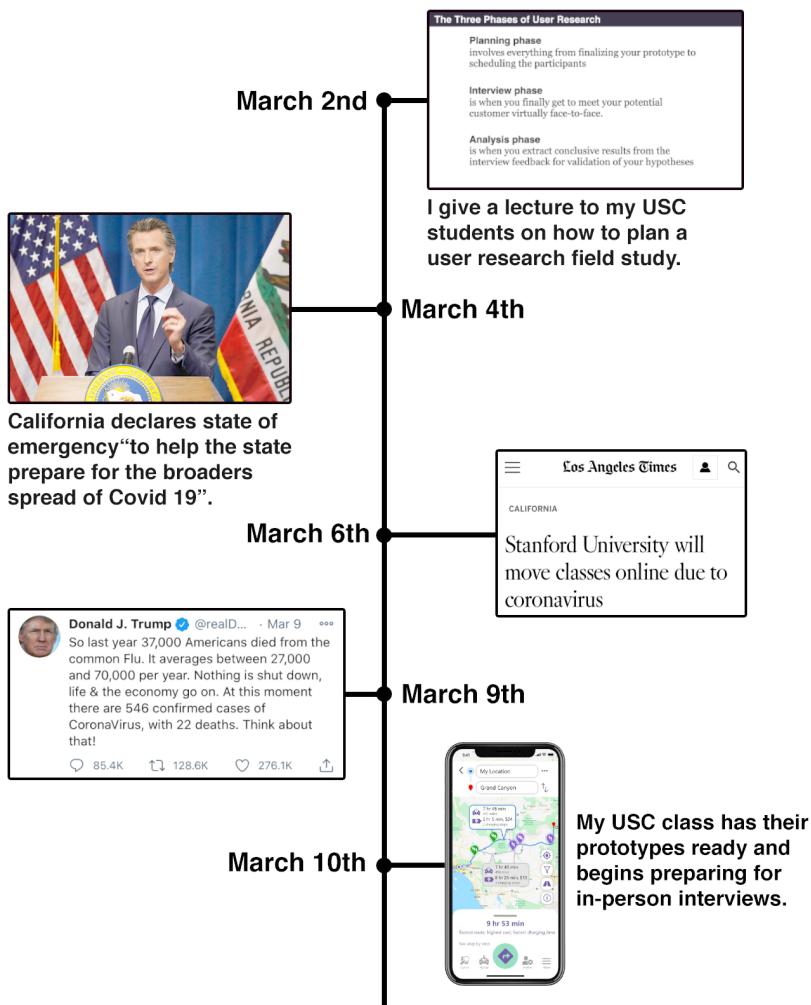


FIGURE 8-2

Timeline for March 2 to March 10, 2020

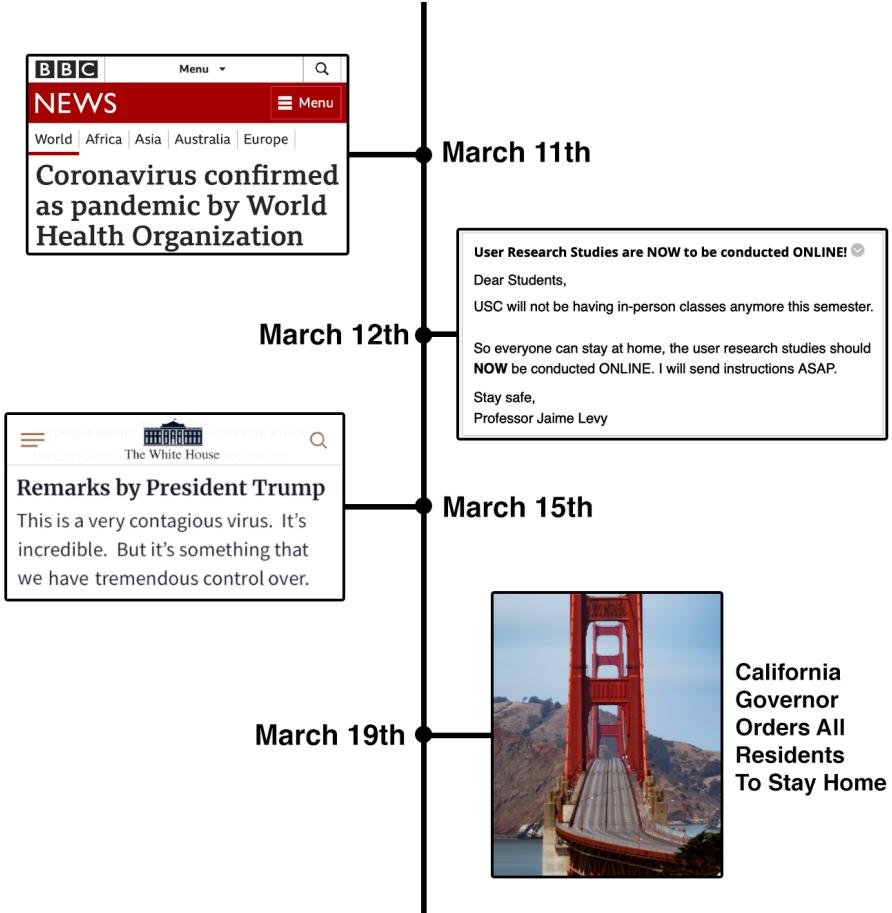


FIGURE 8-3

Timeline for March 11 to March 19, 2020

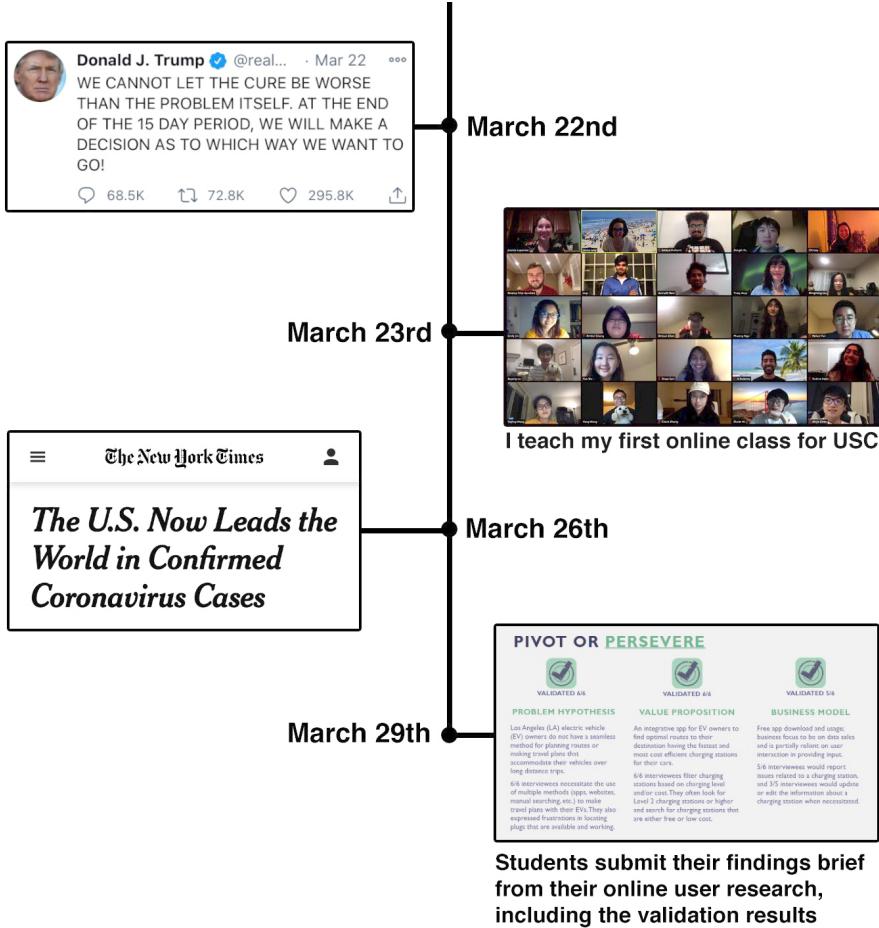


FIGURE 8-4

Timeline for March 22 to March 29, 2020

Lessons Learned

- Even during a major catastrophe, we can find new ways of working to get things done if we are adaptable.
 - I had concerns that online user research would not get the same quality of feedback as in-person research. But, it turns out, the feedback can be just as good if the study is properly executed.
 - Wear a mask, wash your hands, don't be an idiot.
-

User Research Primer

The purpose of conducting user research is to understand the needs and goals of your target customer in order to inform the product's value proposition. User research is either qualitative or quantitative. It's important to know the difference because each has its advantages and disadvantages. You want to be able to decide which kind of research will best serve your product and process.

Quantitative research is designed to gather data points in measurable, numerical form. It can be done on a large scale, which is important for stakeholders looking for impressive numbers and key performance indicators (KPIs). Traditional methods include usability testing, web analytics, web surveys, eye tracking, and A/B testing. Usability testing focuses on whether your products work by discovering in real time how people use the product. Data points tested in a usability study might answer the following questions:

- Does the user perform the required tasks using the interface?
- How many clicks does it take for the user to perform them?
- How long does the user take to complete each task?

The answers to these kinds of questions are concrete. They can validate whether your product's calls to action are positioned correctly, whether the user can find important information, and whether the nomenclature of the navigation is clear. Traditionally, usability testing is conducted in special labs with two-way mirrors or on the premises of large corporations. Nowadays, it can be conducted remotely by

using numerous online services (such as UserZoom and UserTesting) that provide quick, reasonably priced recorded screencasts of how people use your product or prototype while speaking their thoughts in real time.

In contrast, qualitative research relies on the observation and collection of nonnumerical insights such as opinions and motivations. Qualitative studies focus on the reasons behind certain behavior. This approach is better for asking open-ended questions in order to deeply understand customer pain points. These findings can lead to new product ideas and feature improvements. Traditional methods of qualitative user research include focus groups, contextual inquiries, and ethnographic studies.

Ethnographic research—the study of people in their natural environment—is all about getting to the deep, dark places, much like the qualitative personas Alan Cooper advocated in Chapter 3. To get an idea of how in-depth it can be, let’s look at one of my heroes, anthropologist Dr. Genevieve Bell from Intel. Her research focused on gathering insights from developing countries to inform Intel on future chip designs. Over 2 years, she visited hundreds of households in 19 cities across 7 countries in Asia to learn how people use technology. During a keynote I saw her present, she described how she tracked down a woman in a remote village. The woman didn’t have water or electricity or even a computer, but she still regularly corresponded with her son by email. How did she do that? She walked dozens of miles to a family’s home, and the family helped her email her son. The woman actually never used the computer at all!

That kind of research takes some hardcore contextual inquiry, and even though I admire Dr. Bell and her intense fieldwork and comprehensive analyses, I don’t usually work with clients who have the time or money to spend on that kind of research. When I try to estimate the expenses myself—the air travel, hotels, per diem, field notebooks—my mind boggles. Instead, you need faster ways of conducting qualitative user research that will deliver immediate feedback with testing budgets closer to \$500 rather than \$500,000.

Even clients with fat budgets should consider performing online research because it’s not just about saving money; it’s about saving valuable time. The tech industry moves at a rapid pace, and innovation is a moving target. Your window of opportunity to do something unique is

either closing or shifting. Online user research ensures that your team's process will deliver immediate, useful, and pointed knowledge.

In the first edition of *UX Strategy*, this chapter was about conducting user research out in the field. It was important for me to outline the tactics I personally used to capture qualitative data within a controlled experiment and structured framework. For this edition, I'm going to discuss a similar approach for *online* user research I developed at the dawn of the coronavirus pandemic when field research was impossible because of the lockdown in California.

A poorly executed experiment is far worse than a failed experiment because nothing was learned.

I realize that doing online user research is not new for practitioners who cannot easily physically access their customer segment due to distance and other logistical issues. However, due to the pandemic, online communication and collaboration tools have become ubiquitous. Almost overnight, Zoom became mainstream for socializing, working, schooling, and more. After much trial and error, I have found an effective combination of the latest tools and platforms that are free or low-cost, easy to use, and integrate with one another to streamline the process.

The Three Main Phases of Online User Research

Online user research requires a lot of coordination. Your team needs to think through every step in the process and have a backup plan in place. Lives might not be at stake, but cost and time must be contained!

Let's begin with a high-level overview to understand the basic breakdown of each phase as well as the time and expense involved. Then, I will explain each phase in detail using a USC student project as the case study.

PLANNING PHASE (ONE TO TWO WEEKS DEPENDING ON TEAM SIZE AND NUMBER OF PARTICIPANTS)

The planning phase is the most complicated of all three phases because it involves everything from finalizing your prototype to scheduling the participants. Everything must be thought through, timed, and rehearsed. You need to get in, do the thing, and then get out quickly with a win.

The planning phase involves:

- Determining the hypotheses
- Preparing the interview questions
- Recruiting participants online

INTERVIEW PHASE (ONE TO TWO DAYS)

The interview phase can be the most exhilarating of all three phases because you finally get to meet your potential customer virtually face-to-face. You get to see how they actually react to your business concept.

The interview phase involves:

- Setting up before the interviews
- Conducting the interviews
- Taking succinct notes in the spreadsheet

ANALYSIS PHASE (ONE TO TWO DAYS)

The analysis phase is the least complicated of the three phases but is still essential. Don't get sloppy on this phase. You need to extract conclusive results from the interview responses to ultimately validate or invalidate each of your hypotheses. The last step is making rational decisions on the best way to move forward based on your analysis.

PLANNING PHASE (ONE TO TWO WEEKS)

Ready? Let's jump into the first phase.

Step 1: Determining the hypotheses

In this first step, you need to establish the hypotheses of the research study and then define which aspects of the UX and business model need to be tested. Ask yourself, "What are the most important things I need to learn to determine if my solution is desirable and viable?" Think about the assumptions that are embedded into the value proposition. What needs validating with your target customer segment?

We need a framework to ensure our process remains empirical. This is a structured research experiment, after all! Re-enter the UX Strategy Toolkit. Inside, you will find the User Research Experiment Design tool. You will use it to generate the questions that must be answered during your user interviews.

To demonstrate how to fill the tool out, I am going to use another USC graduate student of mine. Meet Nico, an aspiring product manager! His problem statement is as follows: *Los Angeles residents who don't own cars have a hard time renting vehicles on an hourly basis for quick trips and errands.* Like Jessica, he has already completed his customer discovery, competitive research, and storyboard. His value proposition is a platform to rent cars on an hourly basis. He identified the following key features:

1. Users can pick up any fleet vehicle from an authorized host and return it to any authorized host, allowing for one-way or round-trip rentals.
2. Users can browse all available vehicles with at least a 100-mile driving range by proximity and reserve them online within a 30-minute window.

Once his prototype of a car-sharing platform was ready to put in front of his customer segment to get feedback, he used the tool. You can see his output in Figure 8-5.

1. Value Proposition: A platform to rent electric vehicles on an hourly basis	4. Experiment Details: Interviewing five people online that were recruited with a Craigslist ad and shown the prototype for feedback	
2. Experiment Type: User Research Study with Prototype		
3. Start/End date: March 2020		
5. Hypotheses Below	6. Validation Questions Below	7. Minimum Success Criteria
Hypothesis # 1 (Value Proposition): Customer segment would like to rent a car on an hourly basis at least once a month because they need to run errands.	Can you envision a need for renting a car on an hourly basis? For what purpose? How frequently might you use the service?	80% positive feedback
Hypothesis # 2 (Business Model): Customer segment will pay at least \$15 an hour to rent a car.	What do you think the right price would be to rent a car by the hour?	80% positive feedback
Hypothesis # 3 (Key Feature #1): Customer segment is more likely to use this service for one-way trips than for round trips.	Do you think you would use this service more for one-way trips or round-trips?	60% positive feedback
Hypothesis # 4 (Key Feature #2): Customer segment cares about the proximity of the car more than the car price/type/quality/year.	What is important to you for renting a car for a one-to-three-hour trip? Prompts: price, proximity, type of car, ease-of-use in terms of transaction	60% positive feedback

FIGURE 8-5

Nico's filled-out version of the User Research Experiment Design tool

Here is what goes into each of the cells:

1. **Value Proposition:** Put the latest concise version of your value proposition. Nico used the value proposition he refined during his competitive analysis.

2. Experiment Type: Put a high-level description of the type of experiment you plan to conduct, such as a user research study or an online landing page campaign (see Chapter 9). Nico called his experiment “User Research Study with Prototype.”
3. Start/End Dates of Experiment: Put the actual dates and/or length of the experiment. Nico ran his experiment over the course of three days in March 2020.
4. Experiment Details: Put the important details, such as how many participants will be in the study, the tools you expect to use, and what proof of concept you plan to exhibit. Nico wrote about how many people he planned to interview and what tool he would use for recruiting.
5. Hypotheses: As discussed in Chapter 7, a hypothesis needs to be unambiguous and measurable. For user research studies that test business concepts using a prototype, there are typically multiple hypotheses simultaneously tested that relate to the business model, value proposition, and key features. Think about it in terms of cause and effect: customers will do X because of Y. Or consider the likelihood of your assumptions: customers are more likely to X than Y. The primary thing that Nico wanted to learn was whether his customer segment would use his service enough for the business model to be sustainable. That’s why one of his hypotheses is “Customer segment will pay at least \$15 an hour to rent a car.”
6. Validation Questions: These are questions that require answers in order to validate or invalidate each hypothesis. The whole purpose of this tool is to guide you on how best to formulate these questions so you can incorporate them into your user interviews. For Nico, each hypothesis led him to generate multiple questions he needed to ask potential users during his prototype demo.
7. Minimum Success Criteria: The percentage of participants that would need to agree with each hypothesis for you and/or your team to still be excited about the concept. This criteria acts as the break point of the experiment; it’s the proof that validates or invalidates your hypotheses. Therefore, the value proposition criteria should be the highest (i.e., 80%). Nico wanted 80% validation for his value proposition and business model hypotheses and least 60% validation for each of his key features.

Step 2: Preparing the interview questions

The next step is to weave the questions you generated in the User Experiment Design tool into a cohesive user research interview. Remember, these are *not* usability tests. We don't want to fixate on just improving the design so users can more easily accomplish tasks. Instead, your demonstration, which isn't necessarily even clickable, is meant to determine if the user even *wants* to accomplish the tasks with your product in the first place. You will guide the participant through the prototype with the goal of getting feedback that is real, raw, and in your face.

To get that kind of response, you need to really think about your interview questions and in what order you will ask them. Figure 8-6 shows the general flow of the interview.



FIGURE 8-6

Online user research interview flow

I am now going to walk you through writing an interview script based on this flow with Nico as our example. You can use the template in the UX toolkit called “User Research Interviews” when you are ready to prepare your own interviews. This tool is also where you will capture the participants’ responses during the interview in Phase 2.

Be aware that interviews can vary in length depending on your budget and how complicated the prototype is. In Nico’s experiment, the total time for each interview was 30 minutes.

Intro (one minute)

This is where you share the purpose of the study and tell participants that you are looking for honest feedback. Ask them to freely say out loud what is going through their mind to capture additional input (think-aloud method). If you are recording them, you want to tell them how the recording will be used. Let them know they will be paid at the end of the interview, and thank them for their time. Nico’s intro can be seen in Figure 8-7.

INTRO (1 MIN)

Hi <name> I'm Nico. I am conducting this study because my team wants to learn from non car-owners about how they access or rent cars for short periods of time. You can help us the most by giving us honest feedback to the questions. Please think out loud as you use the product. I did not design the prototype so feel free to be critical. The recording of it is just for note-taking purposes and will never be distributed publicly. We are assessing the product, not you, so if you don't know the answer to a question, that's okay. You will be paid at the end of the interview. Thank you so much for helping us with this study.

FIGURE 8-7

Nico's introduction from his user research interviews

Setup (three to five minutes)

Setup questions should focus on getting the participant into the right headspace. You want them contextually oriented when they look at the prototype. One way to do this is before you even show them the prototype. Start off by asking them about the last time they had the pain point you unearthed during your customer interviews in Chapter 3. Ask them to tell you the story, and find out how they solved it. Find out if they have had any experience using your direct competitor's solution or if they are familiar with it. As shown in Figure 8-8, Nico's setup questions revolved around participants' prior experiences accessing cars for short-term rentals.

SET-UP (3-5 MINS)

Can you tell me how you get access to a car for a short period of time (couple of hours to a day)?

What are the issues you have encountered when you need to get a car for a short period of time?

Have you tried any car-sharing services (i.e., Turo), and can you tell me about the experience?

FIGURE 8-8

Nico's setup questions from his user research interviews

Prototype demo (20 minutes)

This is the big reveal when you send your participant a link to your cloud-based prototype. Because you're using a program like Skype, Zoom, or Google Meet, they'll share their screen with you once they open it. This way you'll be able to observe them as they interact with

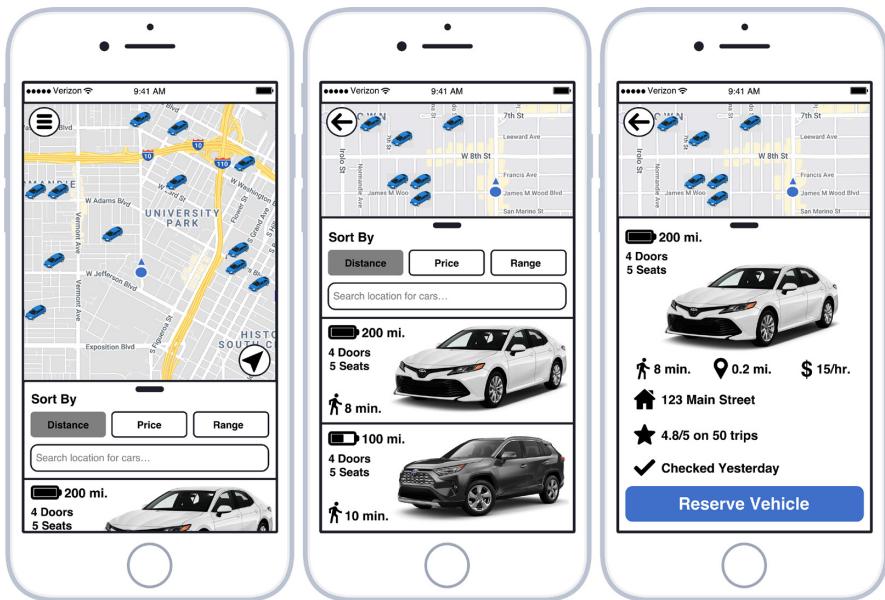


FIGURE 8-9

The first few screens from Nico's car-sharing prototype "Ourly" (patent pending)

and click on the prototype themselves. As they click, you will walk them through each screen in your prototype. You can see the first few screens of Nico's prototype in Figure 8-9.

When you show the first screen to a participant, you want to give them a task so that they have an initial goal in mind—i.e., “I would like you to reserve a car” or “I would like you to book a wedding package.” You need to keep this scenario generic so you have the opportunity to ask specific questions about their preferences and needs as they work their way through the prototype.

To capture those specifics, you need to write questions that correlate to each screen in the demo. Some screens may have no questions because they have no significant content or functionality, like a splash screen. But in general, you should be able to ideate at least one question per screen to make sure the participant understands what they are seeing. For example, a good question to ask when first showing a screen might be “What do you think you can do on this screen?” And yes, while this is a usability type of question, it keeps them focused on their personal user journey. Questions like this can also bring up useful insights

that help you identify parts of the design that confuse the participant. Because you have a real potential customer in front of you, you don't want to miss out on anything because of an imperfect prototype.

Here are some general dos and don'ts:

- Do create interview questions that encourage participants to think through your solution.
- Do ask them to think out loud.
- Do start off with more open-ended questions, and give only enough hints and prompts to validate or invalidate the hypotheses.
- Do use prompts to get the user to share their thought process with you. Find out how, if, and why your solution would work or not work for them through your inquiries. Give them options of familiar mental models that will give the prototype context.
- Do shut up and listen (i.e., talk as little as necessary).
- Don't ask leading questions. Don't tell participants what to think or spin their initial feedback so it validates your hypothesis.
- Don't put participants on the spot by forcing them to brainstorm features for your product.
- Don't be tempted to justify or explain your solution.
- Don't display strong emotions, and keep your nonvisual reactions in check.
- Don't ask questions that test their intelligence—i.e., “What do you think the little blue cars on the map represent?” Often the difference between a good and bad question is just in the framing. A better way to ask that question is “What do you notice on this screen?” Then see if they point out the cars. You might also have to contextualize the screen for the users before asking them any questions: “Now you have just pulled into a host's driveway.”

Figure 8-10 shows Nico's questions for his first few screens. The question on Screen 2 has been structured in a way so that it is not leading, and it also allows for quantitative measurement. The last question on Screen 3 is about pricing. It's hotly contested if you should ask a

customer what they *would pay* for a product. Customers may lowball you or have no idea. That said, getting a sense of what customers *expect to pay* may be helpful for informing marketing and pricing strategies.

PROTOTYPE DEMO (20 MINS)	
Screen 1 - Home/Search	I would like you to reserve a car for a couple of hours. Look at this first screen; tell me how you would go about selecting a car.
What types of things might you do with a short-term rental?	
Screen 2 - Search Results	Looking at the filters, can you rank them in order of importance to you? (key feature #2 validation)
Screen 3 - Item Detail	Is there any information missing from this screen that you would want to know before renting this car?
	Do you think that the price per hour is high or low for renting a car? (business model validation)

FIGURE 8-10

Nico's interview questions for his first few screens

Hypotheses validation (three to five minutes)

Ask any validation questions from your User Research Experiment Design tool that have not yet been asked or were not explicitly answered. Sometimes it is best to ask a validation question while the participant is first seeing the most relevant screen, but other times a validation question should be asked after they have seen the entire prototype so they understand the overall concept. Nico was able to ask about the business model and key features over the course of his interview. But he still needed to ask a few direct questions to help determine if there was a feasible business model.

Figure 8-11 shows the questions Nico asked to help understand how his potential customer might use the service.

HYPOTHESES VALIDATION (3-5 MINS)
Can you envision a need for renting a car on an hourly basis? (value proposition validation)
How frequently might you use this service? (value proposition validation)
Do you think you would use this service more for one-way trips or round-trips? (key feature #1 validation)

FIGURE 8-11

Nico's hypotheses validation questions

Closing (two minutes)

At the conclusion of the interview, be sure to thank the participants by name. Tell them how much you value their honest feedback. Ask if they might be open for you to follow up with them in the future when you are further along with the product. Then pay them while they are on the call or immediately after.

Rehearse and run a pilot test

Now it's time to rehearse the entire interview online. This will help you see if your prototype and questions flow together. You *can* ask a colleague or friend to play the participant. But it's advantageous to recruit and interview a real participant so that you can evaluate your entire process. Perhaps you will find that the recruiting advertisement needs to be fine-tuned. Perhaps the screener questions didn't weed out somebody lying to get into your study. Perhaps you hit a wall mid-prototype, or your participant got confused by a question. By running a pilot study with one participant, you can uncover these hiccups before running a larger study for validating your hypotheses. Remember that a controlled experiment requires consistency across the participants, so you should separate this pilot participant's responses from your other participants when validating your hypotheses.

Plan for technology challenges

Be sure to do a run-through of your technology. Make sure you address all the possible things that could go wrong during the interviews. This includes:

- Bad internet connection
- Bad audio or video quality due to low-quality cameras or microphones

- Screen sharing not working
- Screen recording not saving
- Prototype not working flawlessly
- Participant not having previously downloaded the video software
- Lighting, camera angle, or background not looking professional

Come up with a backup plan in case any of your technology fails during the course of the interviews. At the very worst, you can always call the participant on the phone and still carry on with the interview. Even if your computer doesn't crash, you might still need to adjust your plans. For example, Nico said during his recruiting process that participants needed to have a working computer. Yet, some still joined the call from their phones where they couldn't share screens. After a few participants did this, he reached out with a reminder to participants beforehand that they needed to call in from their computer.

Step 3: Recruiting participants online

If you want to try many design iterations in a short span of time, it might be better to use fewer (i.e., five) participants. This way if you find that none of the participants validates any of your hypotheses, it's more cost-effective and easier to pivot. If there is a lot of variance in your customer segment, you may want to consider starting with a larger sample size. As you home in on what your target customers are responding to positively, you should increase the sample size.

To properly recruit, you must have already validated your customer segment because you want to interview people who represent that group. (See Chapter 3.) It's critical that you know who they are because that will inform how you recruit, where you recruit, how you screen candidates, and when you set up interviews. For example, if you are recruiting school teachers, you might recruit them from a teachers' group on Facebook and schedule the interviews in the evenings or on weekends. Where you advertise for participants also depends on the type of people you need and your budget. If you end up recruiting people outside of your target customer segment, then you could end up with an invalidated experiment, and you'll need to start over.

Participant compensation

Because they are helping you at this point during your strategic endeavor, I recommend always compensating participants. What you decide to pay depends on whom you are targeting and how much they value their spare time. For instance, if you need to speak with doctors, you might have to pay a lot more than you might to other customer segments. Make your payment valuable enough to your participant that it's worthwhile for them to join the experiment but low enough to keep you within budget. Depending on the segment, think about what type of payment method would make them most comfortable—i.e., some people prefer not to get an Amazon gift card if they hate on Amazon. Because Nico was interviewing millennials, he decided to compensate participants through Venmo. Prior to interviewing, he confirmed this was the plan and collected their usernames. Then after the interview, he would send them \$15 just before ending the call. By being proactive, he was able to keep the focus on the research study.

Advertise and screen for participants

There are many avenues to recruit participants if your company can't afford to hire a dedicated recruiting service. Here is a list of mostly free platforms that can be used for advertising:

Craigslist

There are free categories for posting ads, but if you want a lot of responses in a short time, it is worth it to post a paid ad to the “gigs” section.

Facebook

You can run a highly targeted ad campaign for \$10 or post to relevant groups.

Reddit

Look for relevant active communities in which to post. For example, Nico could have recruited from the “r/Turo” community because the primary topic of conversation in the subreddit was the car-sharing service Turo.

LinkedIn

Post to your LinkedIn newsfeed. Post to a relevant LinkedIn group. Or message people directly by adding a note to your connection request. This is particularly useful for finding industry professionals, especially ones who work in technology-related fields.

Twitter

Use relevant hashtags for casting a wide net. You can also “@” individual profiles hoping they’ll retweet your ad to a specific group of followers.

WeChat

Post in groups and share on Moments. Ask friends to repost on their Moments to reach people outside your own social group.

Discord

Post/message in the relevant channels within public communities (“servers”). This platform is especially great for reaching young adults into gaming, pop culture, and more.

Referrals from professional contacts or friends of friends who fit your customer segment can also be helpful. Just be aware that there is an implicit bias when you recruit from family and friends. For B2B software, you can sometimes get participants through your client or capture leads on the client’s website using a form.

Nico ended up recruiting participants using the gigs section of Craigslist. It cost him \$10 to post the ad, but he got so many responses from potential participants, he didn’t even have to call them all to fill his interview slots.

Write your advertisement

When advertising for participants, keep the advertisement simple. Following is a basic template for you to build from:

Title

Paid online research study for <customer segment demographic or psychographic>. <Paid amount> for <number> minutes.

Body

We are developing a <product type> that allows <high-level idea of the solution>. We are looking for <customer segment requirement> to interview online about the product and get your honest feedback. You must be <any major deal-breaker requirements that match the demographics of your validated persona>. The interviews will be conducted on <date(s)> between <time period>.

The <number>-minute interview will be conducted by videoconference using <platform (i.e., Zoom, Google Meet, or enterprise platform of choice)>. Your computer must have a webcam and a decent internet connection. Participants will receive <paid amount> via <payment method (i.e., PayPal, Venmo, Amazon gift card, etc.)> for compensation upon completion of the interview.

Last line version 1

If you are interested, please reply with your phone number and a good time to reach you to discuss this opportunity further.

Last line version 2

If you are interested, please click the link to fill out the screening survey <[link here](#)>.

This template should be modified based on the requirements of your study, as is evidenced by the advertisement that Nico used (Figure 8-12).

The tricky part of the advertisement is that you need to give enough information but not so many specifics that anyone can get into your study by lying to match what was listed in the ad. If even one participant in your sample set doesn't match your customer segment, then your experiment is no longer controlled—your variables are off. This is why recruiting companies charge a lot of money. They are being paid to screen out the wrong people and screen in the right ones.

As discussed in Chapter 3, screener questions are a useful way to qualify potential participants for a study. A good technique is to ask a deal-breaker question that only the correct customer segment could answer quickly and without having to search the internet. Think of recruiting as if you were a detective trying to discern if somebody genuinely fits in your customer segment.

For Airbnb for Weddings, we wanted to find spouses-to-be. When people responded to the advertisement that said we were looking for couples who were getting married, we asked them what wedding venues they had recently considered. If they could not name at least two in the first 30 seconds, we thanked them for their time and concluded the call. If we had just emailed them that screener question, they could have simply googled the answer.

Looking for people to give feedback on a new carsharing app (PAID)

Hi! I work for a startup that is developing a mobile app that allows individuals to rent cars on an hourly basis. I am looking to interview Los Angeles residents ONLINE about the product to get your honest feedback and test a prototype. You must have a valid driver's license.

The interview will take about 30 minutes and will be conducted over video conference (using Zoom which is free to download), so we can all stay safe at home. However, you will need to have a webcam on a computer and a decent Internet connection. The interview will take place on Saturday, March 28th during the day and we can book the exact time after we talk. Participants will receive \$15 via Venmo for compensation. If you are interested, please reply with your phone number and a good time to reach you to further discuss this opportunity.



FIGURE 8-12

Nico's Craigslist advertisement for recruiting participants

Nico called people as the replies came in from Craigslist—they left their phone number and a good time to call. He screened them by asking two deal-breaker questions: “When was the last time you rented a car?” and “How long do you usually rent a car for?” He didn’t want to give away that he was looking for people who had done short-term rentals of ideally one to two days. At the end of that call, he said he’d email people if they were selected.

You can also use a survey platform (i.e., Google Forms, Alchemer, Typeform, SurveyMonkey, or UserInterviews.com) to prescreen potential participants, confirm their availability, and ensure they have the technology required for the call. Some platforms even have timed questions that you can use to ask deal-breaker questions, but this will not prevent cash-strapped people from using a second email address to respond to the survey if they really want to be in the study. That is why you should still call the participants to ask them at least one deal-breaker screener question. You just don’t want to waste your time and money interviewing the wrong person.

Rating your potential participants

When a person responds to the ad, you should capture their name, contact information, and answers to any screener questions in the “Study Recruitment” tab of the UX Strategy Toolkit to keep all of the applicants organized. You can see a partial example of Nico’s filled-out version in Figure 8-13. (The names and contact information in the figure have been changed.)

USER RESEARCH STUDY RECRUITMENT TOOL

Name	Phone Number	Email Address	Availability	Status	Time Booked	Rating 1-3 based on if they are appropriate for the study (3=yes, 2=maybe, 1=no)	When was the last time you rented a car?	How long do you usually rent a car for?	Additional Notes
Ian Curtis	310-949-1686	lcourts@gmail.com	All day Saturday	Confirmed	9:50 AM	3	last month	2 days	
Peter Hook	213-366-7950	pete_h@yahoo.com	Any time after 11AM	Confirmed	12:50 PM	3	last week	day trip	
Deborah Woodruffe	424-361-3483	debw76@hotmail.com	All day Saturday	Confirmed	2:40 PM	3	last month	3-4 hours	
Stephen Morris	661-755-7844	morris1564@gmail.com	1PM Saturday	Confirmed	3:30 PM	3	last weekend	1 hour to a weekend	
Cate Le Bon	213-411-5331	catecat11@yahoo.com	All day Sunday	Backup		2	4 months ago	10 days	
Kurt Cobain	818-746-2776	kurtcoco@yahoo.com	All day Sunday	Backup		2	2 months ago	5 days	
Pete Shelley	626-306-8945	p.sheley@gmail.com	No provided	Backup		2	2 months ago	2-3 weeks	Sounded like he was lying
Mark E. Smith	805-506-3931	emsmit555@gmail.com	All day Saturday	Backup		2	last summer	2 weeks	Was rude
Kim Gordon	424-369-2523	kimmiedd@gmail.com	All day Saturday	Awaiting response					
Bernard Sumner	310-879-1438	bernard23@mac.com	10AM Saturday	Awaiting response					
Patti Smith	323-824-2323	patti1386@gmail.com	All day Saturday	Awaiting response					
Steve Albini	818-368-4577	steve.albini@gmail.com	Sunday 1:30PM-8PM	Need to contact					
Deborah Harry	626-865-3883	deborahharry@hotmail.com	All day Sunday	Rejected		1	never		

FIGURE 8-13

Participant screener and schedule

During the callbacks, fill out the remaining screener questions. Also update the status (need to call, awaiting response, confirmed, backup, or rejected). Most importantly, give them a rating of 1 (no), 2 (maybe), or 3 (yes) in terms of how appropriate they are to be in the study.

After all of the callbacks, reorder the list of participants based on the ratings so that the most preferred people are at the top. Hopefully you will have at least 5–10 applicants who qualified as a “3.” If not, you should consider running another ad on a different platform and/or running a paid ad. Nico gave higher ratings to people who had shorter average rental periods and were available during his selected date and time.

Scheduling the interviews

Now it’s time to contact these people to schedule the interview, which you can do manually or by using a scheduling tool (i.e., Calendly, Acuity, or Doodle). You should book the interviews over 1–2 days. Schedule at least 30 minutes of buffer time between participants in case an interview goes longer than planned or a participant shows up late. You can also consider booking more participants than you need in case people cancel or don’t show up for their scheduled time slot. Nico scheduled participants for 30-minute blocks with buffers between them. This gave him time to process what he just heard and reset for the next interview. When he screened participants over the phone, he also asked for their availability. He then emailed selected participants their assigned time slot based on that availability.

Regardless of how you confirm and schedule your participants, you should email out instructions and more detailed information before the interviews so they are technically prepared.

This email could include the following instructions:

1. Download the online videoconferencing tool (i.e., Zoom, Google Meet, or whatever your platform of choice is) along with the download link.
2. Test your webcam and microphone to ensure they are working with the software.
3. Make sure your computer is in a quiet place with a good internet connection for the interview.

4. Be prepared to share your screen while you view a prototype.
5. The interview will be recorded (the recordings are just for note-taking purposes and will never be distributed publicly).

Once you have all of your participants confirmed, add their name and contact information to the columns to the right of the questions on the “User Research Interviews” template.

In many countries, you will need to get permission in writing either via a consent form or a checkbox in an online survey. Check with the legal department at your company before conducting the interviews.

Now, you are ready for interviews!

INTERVIEW PHASE (ONE TO TWO DAYS)

It’s showtime. Everything needs to run like clockwork, like the choreography of a ballet. All the technology needs to work. The video conferencing software must run smoothly for the participants. The prototype demo and questions need to be in sync. The schedule must allow for possible late birds or no-shows. The show *must* go on.

Technical setup before the interviews

Close all chats and applications that you don’t need, turn off notifications, and hide anything personal or that could be deemed offensive if taken out of context. Open up the videoconferencing software. Retest your camera and mic to make sure the angle, lighting, and levels are still good. Double-check your background and make sure there is nothing distracting or unprofessional in view. Obviously, if you have children or other people in your space, make sure they know not to interrupt you. Open the prototype in a web browser in case the participant has issues accessing or controlling the prototype themselves. Open the “User Research Interviews” spreadsheet so that you are ready to start taking notes. See Figure 8-14 for a standard configuration of a computer desktop for online user interviews.

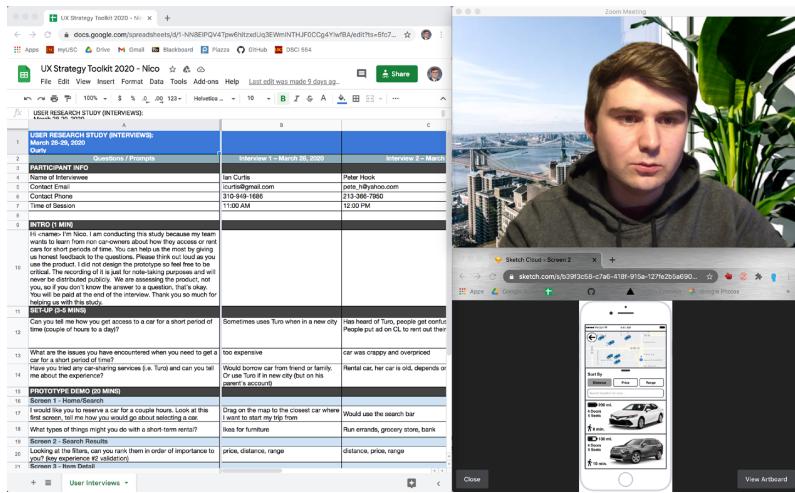


FIGURE 8-14

Nico's desktop configuration during his user interviews

Conducting the interviews

Conducting a good interview to gain worthwhile insights is an art form to be mastered with practice. To learn more, check out a book called *Interviewing Users* by Steve Portigal.* It is an outstanding primer focused specifically on interviewing techniques for conducting user research out in the wild. If you are shy or new to talking to customers, practice with team members and friends beforehand.

Here are my basic guidelines for conducting online user research interviews:

- Always greet people with a warm smile, and immediately thank them for helping you with the research study.
- Do not begin interviews with small talk. Be professional. You can build a rapport simply by being engaged while they are talking.
- Read them the scripted intro, but make it sound conversational. Then, launch into your setup questions. Keep an eye on the clock to make sure you save enough time for the prototype demo.

* Steve Portigal, *Interviewing Users* (New York: Rosenfeld Media, 2013).

- After the setup questions, send them the link to the prototype and ask them to share their screen.
- Stick to the script, but ask additional follow-up questions if needed.
- It's okay to have moments of silence during the interview. You don't want to accidentally say something leading. Instead provide some neutral prompts such as "What do you think?" Or, "What would you expect?"
- Capture any particularly strong opinions or ideas as you hear them.
- If a participant seems distracted during their interview (i.e., surfing the web, looking at their phone), politely ask if there's a better time to conduct the interview.
- At the end, thank participants for their time, and tell them how helpful their insights were. Ask them if it's okay to contact them again for future studies. End on time unless the participant continues to offer useful insights once you have thanked them for helping you with the study.
- It's okay to make slight changes to questions (i.e., rephrasing) and the prototype (i.e., correcting a distracting spelling error) in between the interview sessions, especially if multiple people get stuck or fixated on the exact same thing. However, you don't want to change the prototype demonstration or questions too much until you finish interviewing this group of participants. Otherwise, it's no longer a controlled experiment, so the results won't be comparable across participants, and you won't be able to confidently quantify the results.

Recording

In the first edition of this book, I recommended avoiding recording devices during in-person interviews because it makes participants feel anxious. However, the beauty of online interviewing is that recording does not feel as intrusive, and it more easily captures the participant's facial expressions and usage of the prototype. It may relieve pressure on the participant if you let them know that the recordings will only be used for reference and not publicly distributed.

Be sure to ask permission before you do this if you haven't already. In many countries, you will need to get permission in writing either via a consent form or a checkbox in an online survey. If your company has a legal department, check with them. Otherwise you can find templates for consent forms online.

The recording has lots of uses after the interview. You can pull direct quotes from it and fill in any notes you missed during the live sessions. You can also make a highlight reel to share with your team and stakeholder so they have visual evidence from the study. If your videoconference platform doesn't have a built-in screen recording, then use a third-party tool.

Note-taking

The reason you are using the spreadsheet for note-taking is so that the information is organized for the analysis phase, like in Chapter 5. Live note-taking is important because reviewing hours of recordings or audio transcripts can take a lot of time. If you are not recording, live note-taking will be even more crucial. Also, if you use third-party software such as Otter or Rev to transcribe your audio, you will have to pay additional subscription fees of approximately \$1–\$2 a minute. You can see how quickly that might add up. Remember that our goal is to get in, get answers concerning our prototype, and get out while spending as little time and money as possible. You can consider having a second person on the call to take notes so you can stay engaged with the participant, but there is a risk that the participant may feel even more nervous and paranoid with a second person on the call watching.

Don't worry about spelling. You can go back and fix it later. Try to distill participants' responses into short sentences that encapsulate the essence of what they are saying. Focus on the answers to script questions and any strong verbal or physical reactions the participants have while looking at the screens. Be sure to add any additional thoughts and insights once the call is done while the interview is still fresh in your mind. In Figure 8-15, you can see how Nico efficiently captures these high-level notes.

Questions / Prompts	Interview 1 @ 9:50AM	Interview 2 @ 10:50AM	Interview 3 @ 12:00PM
Screen 13 - Trip Summary If you had a rental car for just a couple of hours, how many miles do you think you would drive?	40-60 miles	40 miles	10-20 miles for city driving, 75-150 miles for longer trip
Screen 14 - Host Portal Would you consider renting out your driveway to one of the fleet vehicles? Other than being compensated for renting out your spot and having personal access to a car, is there something else that would convince you to be a host?	Yes, would consider being a host Security clause so the host knows what to expect	Yes, but it depends on how much she got paid The access is not a big deal since she could walk close by and get a car	Yes, because when she gets to drive it, it would be convenient Testimonial upstream to encourage people to be a host

FIGURE 8-15

Snippet of Nico's notes from his online interviews

ANALYSIS PHASE (ONE TO TWO DAYS)

The analysis phase involves synthesizing all of the feedback from the interviews to determine your team's next action. Did the user research validate or invalidate your hypotheses? Was the experiment a failure because the execution was sloppy? Did you discover that the business model may not work? Your goal is to use the analysis as a decision point to pivot in a different direction or double down on further experimentation efforts that actualize the value proposition.

During or after the interviews, you can also color-code the spreadsheet to help make the analysis quicker, just as in Chapter 5 when you analyzed the competition. For example, a hypothesis-related answer could be color-coded red if it was invalidated or green if it was validated. Quick fixes to the prototype could be color-coded orange. A very poignant insight could be color-coded yellow. Feel free to develop your own system, or have fun experimenting with computer-assisted qualitative data analysis software such as Quirkos.

After each interview, fill out the analysis section!

At the bottom of the template is the Analysis Section, as shown in Figure 8-16. This is where you track whether the participants validated or invalidated each of your hypotheses. The most important thing to remember is to fill out the Analysis Section immediately after each interview while the responses are fresh in your mind. If you wait until all of the interviews have been conducted, then your summary might be biased toward positive validation.

ANALYSIS SECTION	Validation summary		
Did the participant validate key feature 1? (yes or no)	no	yes	yes
Did the participant validate key feature 2? (yes or no)	yes	no	yes
Did the participant validate the value proposition? (yes or no)	yes	yes	yes
Did the participant validate the business model? (yes or no)	yes	yes	yes

FIGURE 8-16

Analysis section for summarizing your hypothesis validation results

Look at all of the responses that relate to each hypothesis, and summarize your analysis with a binary yes or no. This should be easy if you asked pointed questions about each hypothesis during your interview. If you have any “maybes,” then you should consider redoing your study with more decisive questions or further probing.

The ultimate purpose of this binary process is to turn qualitative responses into quantitative and measurable results. Look across each row and add up the number of participants that validated a particular hypothesis. Then divide the sum by your total number of participants and convert the number into a percentage. Compare the percentage to the predetermined criteria from your User Research Experiment Design tool. For example, let's say only two out of five of your participants said that they would pay for your solution, which equals 40% validation of your proposed business model. If your minimum success criteria was 80% validation, then sadly you would not have validated your business model.

Presenting your findings

When you present your research findings to stakeholders, it is best to be brief while tying everything back to the data you just collected. You can start by explaining the goal of the research project—the hypotheses you tested. Next talk about how you executed the study: where, when, and the number of participants. Include any visuals that might help provide context, such as photographs taken or video highlight reels. You can also include quotes or additional findings. What is critical is that you present the key findings, including percentages and ratios where appropriate. These findings should support your actionable recommendations and next steps.

As you can see in Figure 8-17, Nico met his success criteria, getting over 80% approval of his value proposition and business model. He also found that some participants preferred a membership model. Based on his findings, Nico pivoted away from the round-trip concept, focusing instead on optimizing the usage of available fully charged electric vehicles. He also included a membership option for frequent users.

User Research Experiment Results



✓ Value Proposition Validated

83.3% of participants said they would like to rent a car on an hourly basis at least once a month because they need to run errands.



✓ Business Model Validated

100% of interviewees approved of the “pay by the hour” model and said they would sign up to be a “host” in order to make additional money.

Key Insights

- Participants are more likely to use this service for one-way trips.
- Participants care more about price and proximity than the type of car.
- Many participants preferred a monthly membership model.



FIGURE 8-17

Slide summarizing the results of Nico's user research study

Listen to the signal

Now we have unambiguous results from the user research experiment. But this experiment involved a small number of participants. You should repeat your experiment with increasingly larger sample sizes until you have a signal that is strong enough to convince yourself, your stakeholders, and/or potential investors.

Once you are confident in the significance of your results, it is time to make some major decisions. One of these things could have happened:

- You invalidated your value proposition, but you believe you targeted the right customer segment. They simply did not want or need your solution. If you asked the right questions, you should know why. Are there any aspects to your value proposition that they responded favorably to that you can spin in a new direction? If so, go back to Chapter 6 and come up with more innovative ideas. Or do you fear that the problem you are solving is just not bad enough for people to need your solution? If so, it may be time to reconsider moving forward with this business concept. Or do you want to invest more time and money into this idea before throwing in the towel? Then go on to Chapter 9 and try testing the value proposition with a different type of experiment.
- You invalidated your value proposition, but you now believe you targeted the wrong customer segment. Go back to Chapter 3 (customer discovery) and try to find the right customer segment and rerun this experiment again. Just hold off on showing your prototype while redoing the customer discovery until you truly understand who your customer is and what job they are trying to get done.
- You validated your value proposition but not your business model. Look at the interview responses regarding the business model and consider if there are other models worth exploring. You can also look back at your competitors to see if any of their business models could work for your value proposition. You can then update your prototype and do another round of user research interviews. Or you can test the current value proposition against variations of the business model in Chapter 9.
- You validated your value proposition and your business model but not all of your key features. Look at the interview responses regarding the unloved key feature and consider how it can be amended. You

can update your prototype and do another round of user research interviews. Or you can test the current value proposition and business model with variations of the key features in Chapter 9.

If you fell into any of these categories and you have a client or stakeholder who does not believe in your research results and wants to build the product regardless, you face an existential challenge wherein you are trying to balance your principles and your pocketbook. Only you can answer this one.

The best case scenario is that you heard nothing but positive feedback. Mazel tov! Either run your experiment again with a larger sample size to collect even stronger evidence or move on to Chapter 9 to test your business concept with a new type of experiment.

Validating all your hypotheses is a rare feat, especially with truly innovative ideas. So I will close this chapter with an apropos quote by the famous systems thinker and author Donella H. Meadows.* She said:

Instead of becoming a champion for one possible explanation or hypothesis or model, collect as many as possible. Consider all of them to be plausible until you find some evidence that causes you to rule one out. That way you will be emotionally able to see the evidence that rules out an assumption that may become entangled with your own identity.

Recap

Strategy needs to be based in reality. You can conduct online user research studies that are low-budget and fast and provide immediate evidence for stakeholders who need to make important product strategy decisions. Conducting the research can feel intimidating at first, but the more you do it, the less intimidating it becomes. By running a research study as a structured experiment, you will have a framework for separating the relevant from the irrelevant, keeping you focused on collecting insights for hypothesis validation. Your entire team and stakeholders will be better off learning directly from the target customer if your solution is desirable and viable sooner rather than later.

* Donella H. Meadows, *Thinking in Systems: A Primer* (Vermont: Chelsea Green Publishing, 2008).

Designing for Conversion

*Most of my advances were by mistake. You uncover what is when you get rid of what isn't.**

—R. BUCKMINSTER FULLER

YOU MUST CONSTANTLY TWEAK YOUR STRATEGY TO INCREASE SUCCESSFUL outcomes for customer acquisition and retention. Getting things wrong is imperative to the process. You need to strategize and design efficient funnels that do everything from make people aware of your value proposition to convert them into engaged customers. This process of testing and tweaking is known as *designing for conversion*. And it ties together all of the tenets, as depicted in Figure 9-1.

In the previous chapter, the focus was on gathering qualitative feedback from a small set of target users. In this chapter, I'll demonstrate how to use landing pages and online advertising analytics to gather quantitative data from a much larger set of target users to test business ideas and validate marketing channels.

* “Conversations with Buckminster Fuller,” The Werner Erhard Foundation, https://oreil.ly/7Y4o_.



FIGURE 9-1

The four tenets of UX strategy

Dear Diary,

Friday September 23, 1983

Today was not a positive experience. I had to walk all the way home from school again. Everybody at my high school has a car except me. They are all snobby rich kids. And that idiot in History won't stop humming "Michelle" when I walk into class. Why were my parents so lame to name me after a famous Beatles song?? It's like every girl in the world born in 1966 has that name.

Wednesday October 5, 1983

Okay. Today didn't suck like usual. After school Stacy and I drove around in her new black VW Rabbit with the top down blasting music. She totally got me into The Cure and Joy Division. I didn't have time to study for my Spanish test tonight. Whatever.

I've been thinking. My life would be perfect if I just had a boyfriend, a job, and a cool car. I wish I could get a VW like Stacy's. I'm going to ask my dad if he will help me get one.

Sunday November 20, 1983

You are not going to believe this!! My dad lent me the money to get a super cute used convertible Karmann Ghia. I just have to get a part-time job because he's making ME PAY FOR MY OWN GAS AND CAR INSURANCE! But at least I'll have a cool car to drive to school on Monday! I hope Eric sees me.



FIGURE 9-2

Michelle Levy posing with her VW Karmann Ghia convertible

Saturday December 17, 1983

Well, good mood time is here. I think I have a new boyfriend. Who, you ask? Oh just Eric S, the cutest guy at Taft. I also made it through my first day at Pups and Pets. For every puppy I sell, I get a 2% commission!!!! Tonight Eric and I are going to see that new car movie *Christine*.

Monday March 12, 1984

This has got to be the worst week of my entire life. Eric and I were hanging out at his house. I thought everything was fine, but then out of nowhere he said that he wanted to break up. I was so upset that I just ran out crying. I was driving down Ventura Boulevard totally freaked out and accidentally smashed into some rich lady's Jaguar. My car is totally trashed!!!!!!

THEN, I called Pups and Pets and told Mr. Rossi I couldn't come in because I didn't have a car, and he fired me!!! I hate Mr. Rossi. I hate Eric. I hate everything. My poor car. My whole life is ruined!!!

Wednesday July 6, 1984

Yesterday was crazy. I went out to dinner with my mom and her new boyfriend in Encino. There was this kinda cute guy who kept looking at me. And then as we were walking out, he came up to me and asked if I felt like hanging out. His name is Andy, and he ended up coming with me to Stacy's house. He goes to San Francisco State University. I didn't even know there was a state college up there. So I decided I'm going to go there too! My dad says he'll pay for the dorms since I won't need rip-off car insurance anymore.

Sunday, September 4, 1984

Oh my god. What a day. My dad dropped me off at my new dorm. When he drove away, I almost cried. But then Andy showed up. He took me on a train (<-my first time!) to this famous part of town called the Haight-Ashbury. I feel like I can become a different person in this city. When we got back to the dorms, he told me he wanted to introduce me to some of his friends. On the way up in the elevator, I told him to tell them that my name was Jaime and not Michelle. I always loved that character Jaime Sommers in *The Bionic Woman*. When the door opened, he introduced me to this girl Mindy. She seems pretty cool and is also into goth music. Anyway, I'm Jaime now.

Lessons Learned

- It turned out that a boyfriend, a job, and a cool car did not make my life perfect. I had thought I had all my ducks lined up in a row, but now I realize they weren't my ducks.
 - Our names have the power to shape our identity. The name Michelle never felt right to me. It wasn't just rebranding. Adopting the name Jaime allowed me to reinvent myself.
 - Often, to move forward in life you have to push yourself into unfamiliar territory. Don't be afraid to experiment with living in different cities and countries. Adaptability expands your capacity to handle change.
-

Funnel Business

A funnel is a cone-shaped utensil with a tube at the apex for conducting liquid or another substance through a small opening. When I put oil into my car's engine, I use a funnel to increase the success rate that oil will make it directly to where it's supposed to go. The funnel is the mechanism I use to avoid waste.

In the world of UX strategy, waste happens when potential users aren't funneled into the engine of a product. Somewhere along the way, they did not sign up, activate their accounts, initiate a transaction, complete a transaction, or something else. In other terms, they did not experience the value proposition fully and might have clicked away without satisfying their needs. The design of the digital product funnel didn't convert them into engaged customers.

Funnels have been used as metaphors for customer engagement since the ad agency executive Elias St. Elmo Lewis first used the term *marketing funnel* in 1898.* He broke down the customer journey through the funnel into distinct cognitive stages: awareness, interest, desire, and action. This funnel is commonly known today by the acronym AIDA. This staged process is summarized here and in Figure 9-3:

Awareness

When the potential customer becomes aware of the existence of a product. Something grabs their attention, and that sucks them into the top of the marketing funnel. For example, they see an ad.

Interest

When the potential customer learns about the product's benefits and how it might address a need in their life; that draws them in further. For example, they click on the ad because they read the details.

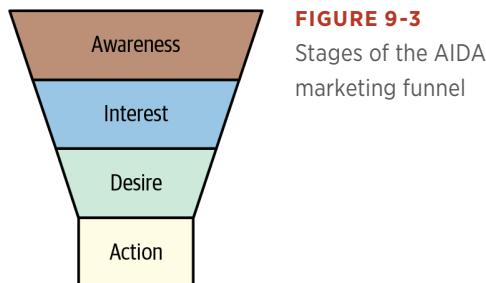
Desire

When the potential customer goes from liking the product to wanting it, and that draws them deeper into the funnel. For example, they consume, interact with, or scroll through all of the information on the landing page.

* "AIDA (marketing)," Wikipedia, <https://oreilly/B75SN>.

Action

When the potential customer takes action toward purchasing the product, bringing them to the bottom of the marketing funnel. For example, they demonstrate their desire for the product by clicking on the landing page's *call to action* (CTA).



The marketing funnel can also be referred to as the *customer funnel*, *sales funnel*, *purchase funnel*, or *conversion funnel*. There are also many variations of the funnel augmented with stages that go beyond customer acquisition, such as the AARRR model* discussed in the first edition of this book. In this chapter, we are going to focus on the basic AIDA framework and how it is relevant to designing for conversion for building awareness.

Conversion in marketing is quite simply the process of getting a potential customer to complete a desired goal. This could be ordering a product after watching a commercial on TV or downloading an app after seeing an ad on YouTube. Users typically don't buy a product or download an app they know nothing about. Someone or something, otherwise known as a *touchpoint*, hooked them into a marketing funnel.

Back in the day of traditional marketing, the touchpoints were things like print or TV or radio campaigns. Or worse, salespeople doing cold calls during dinnertime or sending direct mail, aka "junk mail," to homes. These forms of marketing were challenging because they were slow, expensive, and lacked a way to measure engagement.

* Dave McClure, "Startup Metrics for Pirates," August 8, 2007, <https://oreil.ly/nRfZj>.

Now there are new forms of digital marketing that are easily accessible to product makers. In 24 hours with a \$5 online ad campaign, you can learn more about your target customer segment's reaction to your value proposition than you could with a week-long \$5,000 print campaign in a newspaper. You can also quickly iterate and split-test your marketing campaign and product experience to improve conversion and accelerate growth. This is why there are numerous growth terms and related models that use data to predict and control online customer behavior.

Growth Hacking, Growth Design, and the Hook Model

Growth hacking is a term coined in 2010* by Sean Ellis, an entrepreneur and the author of *Hacking Growth*.† The concept behind the term is for cross-functional product teams to experiment with clever, cost-efficient ways to increase customer growth. Facebook, Twitter, LinkedIn, Airbnb, and Dropbox are companies that have all used growth hacking techniques to become successful. These teams that employ these techniques are now commonly called *growth teams*.

Growth teams are masters of analytics tools, traffic generation, and product optimization. They have a deep understanding of the innards of search-engine optimization (SEO), ad platforms, and social media tools. What they do is called *hacking* because they are ruthlessly focused on growing the business in unconventional ways. They push the limits of traditional marketing using techniques such as A/B tests, landing pages, viral factors, email deliverability, and social media integration. A primary goal of growth hacking is to tie viral and paid ad campaigns to user engagement metrics so that you can identify the most valuable marketing channels. Growth hacking entails continuous tinkering with the product's marketing and user experience so that it is fully optimized for acquiring new users and getting them more deeply engaged.

* Sean Ellis, "Find a Growth Hacker for Your Startup," *Startup Marketing*, July 26, 2010, <https://oreil.ly/hYpaU>.

† Sean Ellis and Morgan Brown, *Hacking Growth* (London: Virgin Books, 2017).

The team is led by a growth owner. This person defines strategies for driving growth and bringing together the “hackers” to collaborate on experiments. Growth owners tend to come from marketing, product, or engineering backgrounds. As a result, these teams can over-prioritize engineering and marketing while undervaluing the role of design.

This is why the term *growth design* continues to gain popularity. It signifies the important role of designers as strategic members of growth teams. Lex Roman, who is a growth design expert, describes it as “focusing not only on customer experience but also on how to drive sustainable business growth by finding the levers to unlock loops of customer and business value.”* Growth designers focus on tweaking the parts of the UX that will have the highest impact. (See Figure 9-4.) They also know how to use behavioral analytics to track whether they have achieved their goals. This comes down to understanding how product design ties into the business model.

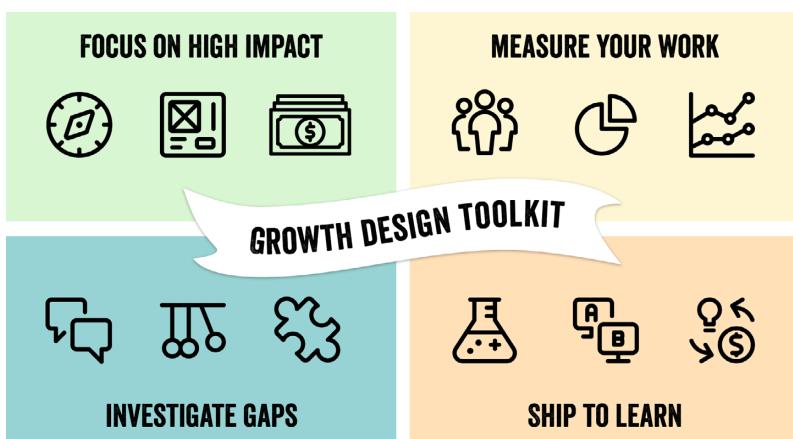


FIGURE 9-4

The growth design framework by Lex Roman

A related framework is called the Hooked Model, which was created by behavioral design expert and entrepreneur Nir Eyal. In his best-selling 2014 book *Hooked: How to Build Habit-Forming Products*, Eyal describes a four-step process (Figure 9-5) to subtly encourage customer behavior

* Lex Roman, “Growth Design FAQ,” *Lex Roman*, <https://oreil.ly/hfvI5>.

through consecutive hooked cycles.* “A hook is an experience designed to connect the user’s problem to the company’s product with enough frequency to form a habit,” Eyal says. This way these newly acquired users get “hooked” into the product without depending on costly advertising or spammy messaging.

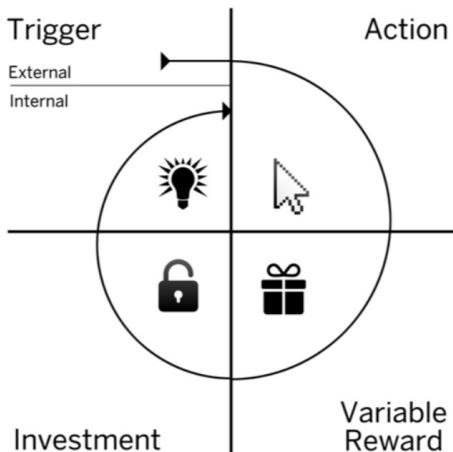


FIGURE 9-5

The four components of the Hooked Model by Nir Eyal: Trigger, Action, Reward, and Investment

I’ll use the user experience of the B2B social network LinkedIn as an example. The hook can start with either an internal trigger, such as feeling frustrated about your work, or an external trigger, like reading a post by a colleague that they started a new job. This causes you to take action, such as scrolling through the LinkedIn feed. Then comes the variable reward of the information you see in your feed. You may decide to like a post or share an article of your own, which is an investment of your time and data into the platform. This investment is a form of stored value, which becomes a product’s competitive advantage over time as the habit is formed.

Eyal has warned that “we need to be careful about how we apply these techniques because they are, as is all design, a form of manipulation.”† Eyal describes how to use behavioral design ethically in *Hooked* and

* Nir Eyal with Ryan Hoover, *Hooked: How to Build Habit-Forming Products* (New York: Portfolio, 2014).

† Nir Eyal, “Nir Eyal on Creating Habit-Forming Products: Closing Remarks,” *LinkedIn Learning*, January 23, 2017.

followed up his first book with a guide to outsmarting distractions with his second book, *Indistractable: How to Control Your Attention and Choose Your Life*.

The Hooked Model, growth design, and growth hacking all build on the 1898 AIDA funnel: awareness, interest, desire, and action. Your team can come up with out-of-the-box hacks to make people aware of your product, but you still need to target the right customer segment with compelling messaging to garner interest and desire. Practicing growth design techniques will help you fine-tune the product experience. It will ensure that users take action and fuel the virality of your product. Once the customers repeat the desired action again and again, then they, along with those they share the content with, become hooked in your product funnel.

In this next section, you’re going to learn how to test a business idea by channeling potential customers to landing pages with inexpensive ad campaigns.

Conducting Landing Page Experiments

A landing page is a single webpage created specifically for marketing a product or service. It’s where a user “lands” after they click on a link in an email or an online advertisement. It is different from a homepage in that it is intended to get the user to do one desired action, such as clicking on a button to download a mobile application. The pages are specifically designed to suck potential customers into the top of your marketing funnel so that you can measure their engagement and validate hypotheses. Landing pages can be used to inform product strategy because through trial and error you can rapidly learn which customer segments respond to a value proposition and/or variations of it.

Figure 9-6 shows the general flow for creating the landing page experiment.

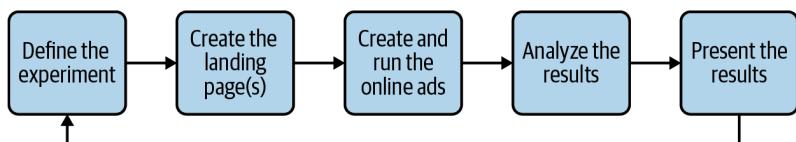


FIGURE 9-6

Landing page experiment flow

If the experiment is executed successfully, the user experience will go like this:

- First the potential customer sees the ad (awareness).
- Then, they click on the ad (interest).
- Then, they find the landing page relevant to their needs (desire).
- Then, they click on the CTA to start getting immersed in your actual product (action).

This flow should be repeated with new iterations until you and/or your stakeholders are satisfied with the results, creating the feedback loops that are key to Tenet 3: Validated User Research and Tenet 4: Frictionless UX.

If you're building a new experiment off of the feedback you received during your online studies in Chapter 8, you may want to run a landing page experiment to test out variations of the value proposition, business model, or both.

Landing page experiments allow you to put different concepts in front of a customer to get early feedback. You will use some of the screens from the prototype you made in Chapter 7 to a) show customers what the app or website looks like, and b) to create the illusion that the business idea is actually a live product or one about to be released. Depending on the feedback you received during your online studies in Chapter 8, you may choose to update the screens prior to including them in the landing page and advertising campaign.

In 2019, I gave a talk at a UX Camp held in Berlin. That's when I met Sebastian Philipp. (See Figure 9-7.) He is the head of the Business Innovation Studio at Volkswagen Group Services GmbH, a Volkswagen Group internal agency/consulting for business and services design. Over lunch, he told me about some cool experiments that the Business Innovation Studio was doing, including a smoke test using ad campaigns and landing pages. I will deconstruct one of their actual campaigns as a case study.



FIGURE 9-7
Sebastian Philipp
pointing to a
Volkswagen We
Share poster in
Berlin, Germany

A little backstory first: Volkswagen is experimenting with different mobility-as-a-service (MaaS) initiatives. They have an entire digital ecosystem of products called We that allows Volkswagen drivers to have more integrated services that come with leasing/owning a Volkswagen. One of the business concepts they wanted to validate was whether customers wanted to reserve car washes through an app and also whether they would be willing to pay digitally. The purpose of this particular campaign was to try to figure out which geographic location for the car washes would attract the most customers.

DEFINE THE EXPERIMENT

If you used the User Research Experiment Design tool in Chapter 8 for designing your online user research experiment, then most of this step will be familiar to you. That's because the Landing Page Experiment Design tool is a slightly modified version:

1. Value Proposition: Put the latest concise version of your value proposition.
2. Experiment Type: Put a high-level description of the type of experiment you plan to conduct, which in this case is a landing page experiment.
3. Start/End Dates of Experiment: Put the actual dates and/or length of the experiment.

4. Experiment Details: Put important details such as how many ads you expect to run, the budget of the study, any tools you expect to use, and what proof of concept you plan to exhibit. If you are unsure of some of these details, come back after you finish the chapter to flesh these out.
5. Hypothesis: As discussed in Chapters 7 and 8, a hypothesis needs to be both unambiguous and measurable. For landing page experiments where I am testing business concepts, there should be just one variable tested at a time. Otherwise, it is not a controlled experiment. Possible variables could be the advertisement, the landing page, and the targeted audience. This is the most important part of the tool to fill out now. You can always complete the rest before running the experiment.
6. Validation Method: This is where you describe how your variable of choice will be used to test the hypothesis.
7. Minimum Success Criteria: Put a percentage number that represents successful validation for your hypothesis or hypotheses. For your landing page experiment, this percentage is called the conversion rate, which is the number of times someone does the desired action (i.e., clicks on the button to download the app) out of the number of users that visit the landing page (typically between 2–6%). For your ad campaign, this percentage is called a click-through rate (CTR), which is the number of times the ad is clicked on divided by the number of times the ad was displayed (typically between 1–5%).

As you can see, the first three parts are identical to Chapter 8, but the rest are specific to running landing page experiments, including how you might drive traffic to it. I'm going to fill out the Experiment Design tool myself using the Volkswagen landing page experiment as a reference. (See Figure 9-8.)

CREATE THE LANDING PAGE(S)

The primary function of your landing page is to reveal more about the future state of your product to the prospects who have landed there so that they take action. This conversion must happen as fast as a 30-second commercial. You need to convey to potential customers what your product will do for them by using whatever content does the trick. This is when you want to bring the content or brand strategists from your

1. Value Proposition: An app for booking automated cashless custom car washes.	4. Experiment Details: Running one ad on Facebook at two different audiences. Each ad campaign will have a 350-400€ budget and will start on the same date. Compare the outcomes of the ad campaigns and the landing pages.
2. Experiment Type: Landing Page Experiment.	
3. Start/End date: Wednesday, April 22, 2020 through Wednesday, April 29, 2020.	

FIGURE 9-8
Landing Page
Experiment Design
tool in the UX
Strategy Toolkit

team into the conversation because you need to distill your product into something digestible by using text, photos, and video. In Chapter 3, I discussed the pitch aspect of the value proposition. That's the thing the landing page needs to communicate.

I will now walk you through the process of creating a landing page.

Step 1: Pick a platform and a template

There are numerous platforms for creating and running landing page experiments. They vary in capabilities from basic and free to robust and expensive. Most of them offer 14-day free trials and monthly subscriptions if you need more time. Two popular platforms that have been around for a while are Unbounce and Instapage.

What is important when choosing a platform is that you pick one that allows you to easily do the following:

- Choose from customizable responsive templates
- Drag and drop elements to build your page
- Assign your own domain name to the landing page
- Track the conversion of your pages

Once you have created an account, it's time to pick a template. Templates not only make the process faster but are also optimized for conversion. Be sure to choose a responsive one because the majority of users landing on the page will be on mobile devices. "Click-through" templates are a good choice because your goal is to get users to click through. Or if your specific goals are an app download or product launch, choose a template that is optimized for that. You may not need to use all of the elements within each template, but choose something that looks professional and only needs minor modifications.

For inspiration on what to include, google "most successful landing pages" + current year. You can also typically find great inspiration for landing pages on major landing page platforms.

Step 2: Add the content (unique and borrowed), and modify the design

Now it's time to populate the template with your unique content. Check out the above-the-fold view of the AutoWaschen landing page as a reference. (See Figure 9-9.)

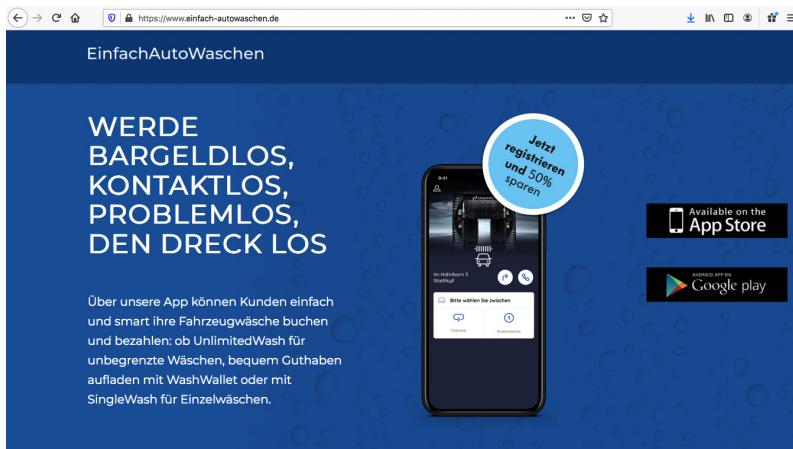


FIGURE 9-9

Top section of the Volkswagen Group Services GmbH Einfach AutoWaschen landing page

Following is a list of elements that are must-haves. You can prepare these elements before choosing your template or after.

Your landing page must-haves:

Logo and name of product

If you need help with a logo, use a free web-based logo generation tool or hire someone on an inexpensive freelancer services platform (i.e., Fiverr.com) to make one for you. Don't get obsessed about your logo at this point because it is just a placeholder for testing purposes. Major enterprises like Volkswagen typically don't use their own branding on experiments like these. They don't want their own brand to influence the customer's perception of a new product. Or they don't want their existing customers to be confused by a product that is not aligned with their current offerings or branding.

Your value proposition and/or tagline

This may include a short paragraph that further explains what the primary product benefits are.

Call to action (CTA)

This is the most important element on the page because it will feed the metric you use to prove conversion. It is usually a button or a form with a button. On the Volkswagen landing page, they used the IOS apple store icon and Google Play icons (see Figure 9-9), which is common practice for mobile apps. Forms are typically used to capture email addresses for lead generation. These days you need a compelling reason for someone to share their real email address. For testing business ideas, it is more effective to use a button to gauge interest because the idea of spam doesn't even pop into the user's head. Make sure the button is eye-catching. Use a contrasting color such as red or green. Avoid overused colors like the colors used for fonts or the page background. Casual language is also effective, and that's why you often see CTAs use words like "my" or "your." CTAs can be solution-oriented, such as "End my parking hassles," or they can be action-oriented, such as "Download your guide now" or "Tell me more!" Overall, what you're trying to achieve is that the user feels as if they're being spoken to directly.

Photos/graphics/videos that show what the solution delivers

These could be screenshots of interfaces depicting your key features or a short summary of benefits with icons, like Volkswagen did. (See Figure 9-10.) You can also include a photograph showing your customer segment looking satisfied by the outcome of your product. If you use static screenshots of your intended interface—as in your prototype in Chapter 7 or as updated from Chapter 8—make sure to pair them with a brief description.

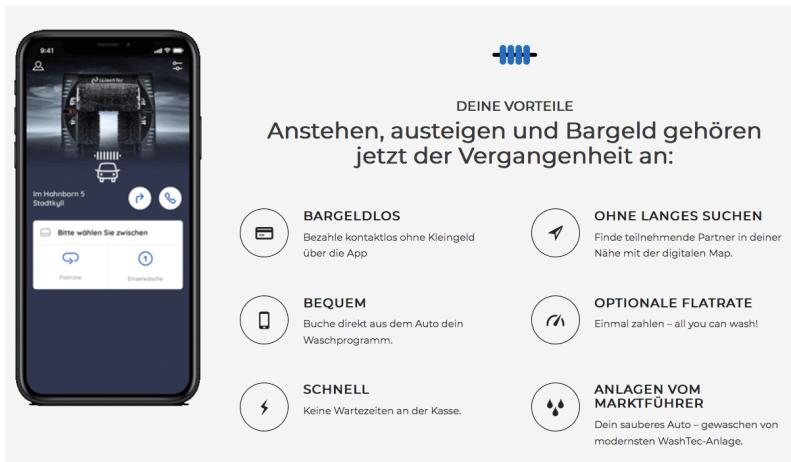


FIGURE 9-10

Key features section of the Volkswagen Group Services GmbH Einfach AutoWaschen landing page

Don't have any grammatical or spelling errors on your page. It will give the impression that your company is not credible because you can't afford a copywriter, or even worse, that it's a fake. Use colors that are complementary to your product screens. Be certain that any text clearly pops out from the background and is accessible. If you look at the AutoWaschen landing-page example, you will notice the subtle yet visually appropriate light-blue bubbles giving texture to the darker-blue background without overwhelming the copy. Include a copyright with the current year in the footer so that the page looks current.

Other nice-to-haves are testimonials, social media links, badges, or company names that might use your product. These are considered social proof because they are a form of external validation that makes your product seem trustworthy. If your product doesn't exist yet, use quotes from your user research interviews, or demo your product for a friend and ask for their thoughts. The quote should be something positive about the benefits or an innovative feature. Good quotes sound informal, like how people actually talk. It should not repeat copy that is already on the page or sound like marketing jargon. Figure 9-11 shows a testimonial from the AutoWaschen landing page, which translates to "Fantastic idea and well done. It makes the purchase of a car wash very

easy and comfortable. With the flat rate washing service offers, you will save time and money. I recommend this app for anyone who gets car washes often.”



FIGURE 9-11

Testimonial section on the Volkswagen Group Services GmbH Einfach AutoWaschen landing page

Before spending huge amounts of time fine-tuning a particular design, be sure to publish it and check how it displays on multiple types of devices with various screen sizes. Flip back and forth between the desktop and mobile version of the landing page to make sure both look right in preview mode. If you have a video or media element that only works in one version, then consider making slightly different versions for mobile and desktop. Be careful when using background images with a lot of contrasting colors. When the screen adapts to different aspect ratios, the text will float over the image, and it could be hard to read.

Step 3: Make it functional

Now it's time to make the page functional. First, you want to make your CTA button do something. It can bring up a modal pop-up or lightbox that thanks the user or provides some next steps.

Getting the user to click the button is your conversion goal. If you're using a landing page platform, you want to set it up so it tracks the metrics—specifically the number and percentage of visitors who click it. You then need to test your conversion tracking by clicking on the button from multiple devices. You want to know that it is correctly tracking both visitors and button clicks. If you don't do this step correctly, then you will learn nothing from your landing page during your experiment.

By default, the platform will typically give the landing page a URL that is a subdomain of one of their own websites. It may have their own company name or the word demo in the URL, which will make the landing page appear fake. Yes, it is fake, but you do not want your

visitors to know that because then you won't be able to tell if people weren't interested in your value proposition because they didn't like it or because they thought it was fake. So buy an inexpensive domain name that includes the name of your product. Your domain name provider or landing page platform should have instructions on how to connect your new domain name to your landing page. There are lots of \$5 options out there that aren't ".com." As I already mentioned, companies do this anyway to protect their brand. It is also worth consulting with your company's legal department before running the campaign because you may need to outsource certain steps to a third party to avoid liability issues.

Step 4: Create duplicates or variants

Now we are going to talk about split testing!

If your experiment requires the use of different advertisements, then you will need to create a duplicate of your landing page. The landing pages will be identical, but they will be at two different URLs so you can properly track which advertisement ultimately had a better conversion rate with the landing page CTA.

If your experiment focuses on testing multiple versions of the landing page simultaneously, then you will need to create an entirely new landing page design. Or you may duplicate your current page and make specific modifications based on what variables you are testing—i.e., pricing, call-to-action, design, messaging, etc. The landing page platform can automatically split the traffic coming from one advertisement to each page variant. This is called *A/B testing* or *multivariate testing*.

Create and run the online advertisement(s)

If consumers are not appropriately made aware of your product or brand through marketing, then your product may fail regardless of how exquisitely designed it is. Before the web, traditional media such as radio and TV commercials or print advertising was the primary way to get people's attention. Traditional media is both expensive and lacks precise analytics for learning in real time what about an advertising

campaign is working. This is why more advertising dollars are being spent on the internet than on any other media. In 2019, internet advertising revenues reached \$125 billion!*

The secret sauce in online advertising is the ability to do microtargeting. Microtargeting is when you target highly specific demographics, psychographics, interests, and so on of your presumed customer segment(s). Ad campaign platforms also make it easy to run experiments with budgets as low as \$5 for a one-day campaign and then see the conversion metrics 24 hours later.

The two types of online campaigns I am going to discuss are paid social media advertising and search engine marketing (SEM). In 2019, marketers spent over \$36 billion on social media ads and \$55 billion on search result ads. Social media campaigns can be run on Facebook, Instagram, LinkedIn, Twitter, WeChat, etc. The ads passively show up in people's feeds, but they can also be blasted out to their partner networks. Conversely, search ads are displayed after someone actively types a relevant keyword into Google, Bing, etc. Both forms of advertising require a lot of tweaking, but there can be a big payoff once you figure out the magic formula.

Here are some differences between search engine marketing and social media advertising:

Search engine marketing (i.e., Google, Bing, etc.)

- Is better if you are not sure who your customer is because it displays ads based on keywords entered, not based on who is searching
- Has a higher probability that someone will buy your product (called purchase intent)
- Has higher conversion rates, although you often have to pay more for the clicks
- Is better if you want to sell your products directly

Paid social media advertising (in other words, Facebook, Instagram, LinkedIn, Twitter)

* Interactive Advertising Bureau, *Internet Advertising Revenue Report*, May 2020, <https://oreil.ly/m4x2R>.

- Allows for even more-specific microtargeting of an audience based on profile data
- Is more visual
- Can reach more people for less money
- Is better for creating brand awareness or developing a social following

Google and Facebook are two of the biggest platforms for search engine marketing and social media marketing, respectively. The issue with using Google Ads for landing page experiments is that you typically need to run the ad campaign for at least two weeks to learn anything useful. Google Ads also isn't built for microtargeting. Instead it is designed for optimizing keywords to *discover* potential customer segment(s). That is why I will be using Facebook in the following examples. Despite the fact that I have serious ethical concerns about Facebook, they are currently the best in town at the advertising game.

Facebook Ads Manager is constantly changing their user experience and process for running a campaign. Here are the basic things to look out for when setting up your advertising campaign:

Company page

You need to set your “identity” to a company Facebook page. You can quickly and easily make a company page with just a cover photo, logo, and brief description. Make sure the page looks legit because users may like or comment on it. If you continue with this value proposition, this could even become your permanent company page.

Campaign objective

First you need to create a new ad campaign on your platform of choice. Choose “traffic” as your objective, and name your campaign. The reason “traffic” should be chosen is because you are trying to drive traffic to a landing page.

Geographic location

Choose the geographic location(s) where you want the ad to be seen. Start small by focusing on one city or even a zip code within a city where the demographics match your validated persona from Chapter 3. The reason not to choose an entire country like the USA is that it makes it difficult to focus your reach on a particular

segment and thus learn anything. You want to run it at locations where you hypothesize your product is most likely to succeed. For instance, with the Volkswagen AutoWaschen experiment, they ran two separate campaigns, one in an urban German city and one in a rural German city.

Audience targeting

Select an audience that matches your validated persona in terms of demographics, interests, and behaviors. You can create an audience based on age range, gender, household income, education, and combinations thereof. Moreover, you can do detailed targeting of highly specific behaviors and interests, such as commuters who are interested in car washes.

Budget and schedule

Start by running a one-day pilot experiment with a budget between \$5 and \$10. This is important because it is complicated to set up and run a new campaign and easy to make costly mistakes. After this initial test, check the results to see what went right and what went wrong. Then you can increase your budget and campaign length.

Think about when you are going to run your ads based on when your target demographic will be most likely to see them (i.e., days of the week and time of day). You need to get into your customer's headspace. For example, a person who owns a car and likes to keep it clean may be more likely to look at Facebook on a Friday at the end of the business day. Or they may google car washes from home on a Saturday morning. But to validate these assumptions, it is best to run a campaign for an entire week so that you can learn exactly which days and times garner the best results. Also, allow some buffer time for the ad to be reviewed and approved before your scheduled start date. (See "Advertisement Approval" for more on this.)

As you become more confident with running campaigns and more aware of what works the best, you can start increasing your budget. The issue with small campaign budgets is that you will get back results based on a small sample set, and these results may be meaningless. For the Volkswagen Group Services GmbH AutoWaschen campaign, they ran two ad campaigns with budgets between 350€ and 400€ (approximately \$410 and \$470) for 5-to-8-day campaigns.

Ultimately, your budget should be based on the cost-per-click of the ad after you have run a few campaigns. It may require spending at least \$500 to be able to make definitive statements about the best ad strategy. I think of ad campaigns as throwing hard-earned money at billionaires like Zuckerberg, so I do a lot of small experiments until I am confident in my tactics.

Advertisement design

Creating advertising that works is part art and part science. You need a concept that is high impact yet easy to understand. You can have an ad that is focused on the problem that users have (i.e., a dirty car with sad people waiting in a long line). Then you can lure them over to your landing page that is focused on the solution to that problem. Or you can have an ad that is solution-centric and includes aspirational imagery and text (i.e., a clean car and copy about the benefits of the app). You can also combine both ideas, like with the AutoWaschen ad shown in Figure 9-12 where they show both the problem (the dirty car) and the solution (the app plus the copy explaining the benefits).



FIGURE 9-12

Volkswagen Group Services GmbH's Einfach AutoWaschen Facebook ad

Sure, you can write sensational, misleading copy or include an image of a sexy woman, but getting clicks using clickbait such as this will not help you validate your value proposition or business idea. Even if people come to your landing page, such tactics won't help you learn about what copy and/or images truly convey your value proposition because your users didn't come to your landing page looking for that information.

The following are must-haves for an ad with some variance depending on the platform and placement:

Headline

This is your product name and/or value proposition. For AutoWaschen, the headline was “Wasche jetzt in deiner Nähe,” which translates in English to “Wash Near You Now.”

Primary text

This is an eye-catching description of the problem you are solving or the solution you are pitching. For AutoWaschen, the primary text was “Noch nie war das Autowaschen so einfach! Lade unsere App herunter, buche deine Wäsche bequem,” which translates in English to “Car washing has never been so easy! Download our app; conveniently book your wash.”

Destination URL

This is the landing page you are sending people to when they click.

Captivating image

Images are more commonly used in social media ads. For AutoWaschen, they went with a dirty car and an app screen using the same background as their landing page. Please note that Facebook has limitations on including text in images, so do your due diligence before submitting.

Call-to-action button

This is the primary way people will get from your ad to your landing page. For AutoWaschen, they used “Mehr Dazu,” which translates in English to “Learn More.”

Design the ads for mobile first because that is how the majority of the users will see it. Choose the content and design of the ad with your audience in mind. Make sure the look and feel of the ad and landing page are consistent—also called a message match—like in the AutoWaschen campaign. This way people don't feel disoriented after clicking on the

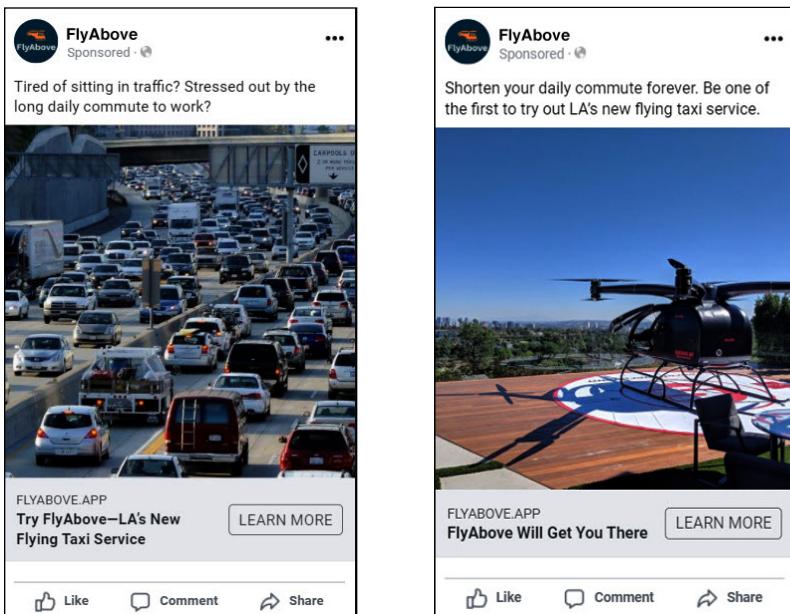


FIGURE 9-13

Jessica's two different Facebook ads, one focusing on the problem and one on the solution

ad. As with the landing page, have someone who is fluent in the language that you are running the campaign in copy edit it. You want to make sure it not only makes sense but also has no grammatical or spelling errors.

Variants (if necessary)

If you're varying the advertising campaign as part of your experiment, make a second ad or second audience. Here are some options if you're planning to run this type of experiment:

- Create two different ads that focus on different concepts: customer problem versus solution, pricing strategy variations (i.e., freemium versus subscription), or different key features. Run them at the same audience and on the same schedule.
- Create two different ads that focus on the same concept but have different designs. The variation could be in the artwork, headline, or primary text. Run them at the same audience with the same schedule.

- Run one ad at two different audiences on the same schedule. This is how the AutoWaschen campaign worked.

Notice how we are only playing with one variable in each option—concept, design, or audience, respectively. This way the experiment stays controlled. Spending the same ad budget on both campaigns and running them at the same time will also make comparing the results more straightforward. Always have each ad run to its own version of the landing page so you can track the conversions corresponding to that ad.

In Figure 9-13, you can see that Jessica (you might remember her value proposition of an app for booking air shuttles from Chapter 7) went with two different ads focusing on different concepts for her landing page experiment. The ad on the left focuses on the problem that users are having, and the ad on the right focuses on the solution she is offering.

If you have a two-sided market, you will need to run two different ad campaigns, one campaign for each with an online ad and landing page designed for each customer segment. This should be executed as two different experiments.

Advertisement approval

Before you submit your ad campaign, make sure to reset your tracker to 0 clicks on the landing page platform. If you don't, then the system might include views from past campaigns or your own views from when you prepped during the design phase, and your experiment will be inconclusive.

Even after you submit your ad campaign for review, plan for possible hiccups. There are numerous reasons why an ad might be rejected. Ad platforms often change their guidelines. You might have too much text in the image, feature prohibited content, or misuse restricted content. Sometimes one ad might get approved and another rejected, which could potentially cause the campaign schedule to go off track and contaminate your experiment. If you do get rejected, check the advertising policies of the platform to understand why you might be having compliance issues.

Once your ad campaigns are approved, you are off to the races!

Analyze the results

Once the campaign has run its course, it is time to analyze the results. Hopefully, the ads were viewed and then clicked on by a high percentage of your chosen audience. Ideally, a high percentage of that cohort then clicked on the CTA on the landing page. Even if you ran just one \$5 Facebook ad for one landing page experiment, there is something to be learned even if the learning is that nobody clicked on your ad. You need to put on your detective hat so you can interpret the data and make logical correlations about what worked and what did not.

In Figure 9-14, you can see a screenshot from Jessica's Facebook campaign. There are a few things to look at. Jessica ran her problem ad and solution ad at the same audience and sent them to identical landing pages. The data points to understand are the following:

Results (link clicks)

This is the number of times the ad was clicked on.

Reach

This is an estimate of the number of people who saw the ad at least once.

Impressions

This indicates the number of times the ad was shown. It's different from reach because one person could have been shown the ad multiple times.

Cost per result (or click)

This is the budget divided by the number of link clicks.

If you look at Figure 9-14, you can see which ad had more success. The problem ad had almost four times as many link clicks, and the cost per click was only 12 cents—nearly a quarter of the cost per result of the solution ad. Having a lower cost per click is important because it means it is less expensive to buy web traffic to your landing page. This is good tactical information when you start targeting customers in earnest.

We should also look at the click-through rate, which again, is the number of link clicks divided by the number of impressions. Jessica's problem ad had 43 link clicks out of 1,425 impressions. Divide those two numbers, and the click-through rate is 3.0%. Meanwhile her solution ad had 11 link clicks out of 1,216 impressions, which makes the click-through rate only 0.9%. What a difference!

Ad Set Name	Bid Strategy	Budget	Results	Reach	Impressions	Cost per Result
Problem Ad	Lowest cost Link Clicks	\$5.00 Lifetime	43 Link Clicks	1,402	1,425	\$0.12 Per Link Click
Solution Ad	Lowest cost Link Clicks	\$5.00 Lifetime	11 Link Clicks	1,150	1,216	\$0.45 Per Link Click

FIGURE 9-14

Jessica's Facebook ad campaign results

This continues to tell her that the problem ad performed better on Facebook, but she still can't say it's the better ad campaign until she also looks at the conversion rates for the landing page. This is because her goal is not just to get people to click on ads. Ultimately, the metric she is most interested in is how many customers might download her app.

In Figure 9-15, you can see a screenshot of Jessica's landing page results, which were collected by her landing page platform.

<input type="checkbox"/> Problem vola.website/page2	Standard	 	43 visitors	5 conversions	11.62% conversion rate	
<input type="checkbox"/> Solution vola.website/page1	Standard	 	11 visitors	1 conversions	9.09% conversion rate	

FIGURE 9-15

Jessica's Unbounce landing page results

The data points to understand are the following:

Visitors

This is the number of visitors to the landing page. Don't be surprised if it differs slightly from the number of ad link clicks.

Conversions

This is the number of visitors who clicked on the CTA.

Conversion rate

This is the number of conversions divided by the number of visitors.

Now we have a clearer picture of how well the problem ad actually performed. We can see that the conversion rate was slightly higher for the problem ad (11.62%) compared to the solution ad (9.09%). But we also need to consider her sample size, which was very small. Because only 11 people clicked on the solution ad, one person converting led to a high conversion rate—small sample sizes mean we have limited statistical power. However, if we compare the number of conversions, we can see that she had five times as many people convert when coming from the problem ad. This is why it is important to consider all of your data points when interpreting your data.

As you can see from this tiny \$5 campaign, which only ran for one day, the spread between the two ads sets and the landing page conversion was enough evidence for Jessica to double down on her problem ad for her next experiment.

It's important to run one experiment at a time and use the learning to iterate for improved conversion. You can increase the budgets as you dial in on your best ad designs and concepts, landing pages, most responsive audiences, and best times/places to run the ads. This might require redesigning and retargeting the entire campaign multiple times until you can figure out the “magic formula.” Think like a growth hacker!

Present the results

In an enterprise environment, you will need to present your data to your team and stakeholders, make decisions, and then continue to experiment to inform your strategy. This brings us back to the AutoWaschen experiment of Volkswagen Group Services GmbH. After their product team ran their experiment, they needed to present the results to stakeholders who were not necessarily marketing people or math geeks.

In Figure 9-16, you can see a slide presenting the experiment. It includes images of the ad and landing page to show stakeholders how users went through their marketing funnel. To the right of the images, you can see a table that summarizes the results from the ad campaign and landing pages. The numbers shown in the table have been altered for confidentiality reasons.

Online Smoke Test mit „Einfach Auto Waschen“

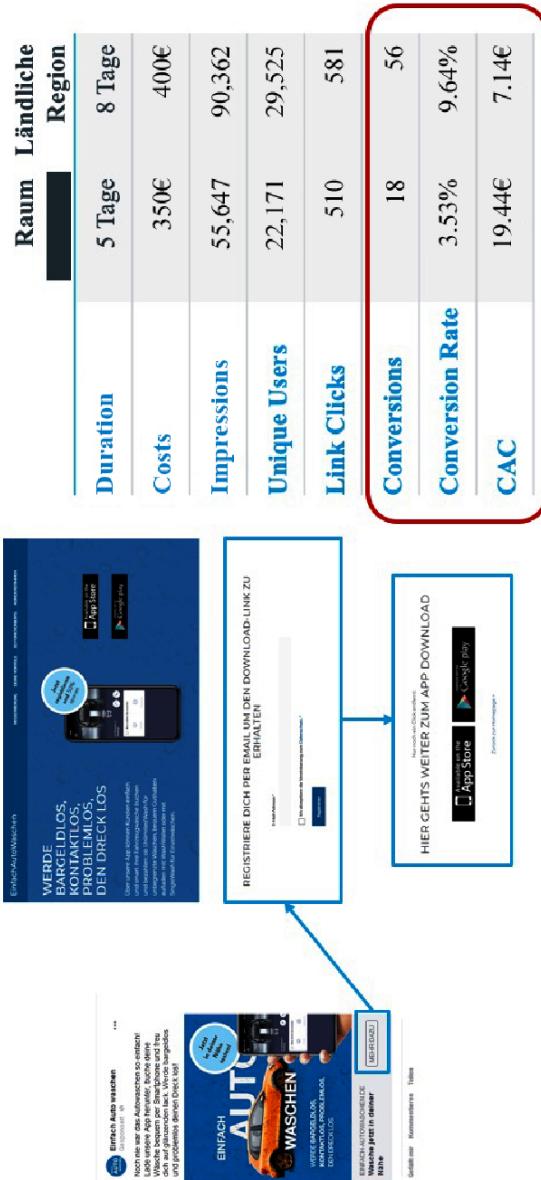


FIGURE 9-16

Volkswagen Group Services GmbH Einfach AutoWaschen landing page experiment results with urban city on left and rural city on right (numbers have been altered for confidentiality reasons)

They included the following data points:

Duration

This is how many days they ran each campaign for.

Costs

This is the budget for each ad.

Impressions

This is the number of times each ad was shown.

Unique user

This is the same as reach, meaning it shows the number of people who saw the ad at least once.

Link clicks

This is the number of times the ad was clicked on.

Conversions

This is the number of visitors who performed the CTA on the landing page.

Conversion rate

This is the number conversions divided by the number of visitors.

Customer acquisition cost (CAC)

This is the budget divided by the number of customers acquired. “Customers acquired” in this case are users who clicked on the download button on the landing page. This number becomes increasingly important as you begin building your business around a product and need to balance acquisition costs against customer lifetime value (CLTV).*

The Business Innovation Studio spent 750€ (\$880) in total running their AutoWaschen campaign, which went out to approximately 50,000 users on Facebook. In order to have comparable sample sizes across the two campaigns, they ran the rural campaign for an additional three days to boost the number of unique users. Though the link click totals

* “Customer Lifetime Value,” Wikipedia, <https://oreil.ly/Pg37h>.

were similar, with 510 for the urban audience and 581 for the rural audience, the rural audience actually had a much higher conversion rate—9.64% compared to 3.53%.

In terms of cost for conversion, they paid 19.44€ (\$23.02) per click with their urban audience and 7.14€ (\$8.46) per click with their rural audience. That means that they paid more than twice as much to acquire each urban customer than they paid for each rural customer. The evidence from this landing page experiment invalidated their hypothesis, which if you'll recall was that drivers in German urban cities are likely to want this service more than drivers in rural areas. It showed that they might have more success if they put this type of car wash service in a rural area. Aren't experiments cool?

Landing page experiments are just one instance of designing for conversion. As you work toward and eventually launch a live product, you need to continue to look for growth opportunities. This includes optimizing subscription pages, checkout processes, referral interactions, and shares/likes/follows. Designing for conversion requires thinking holistically about your customer's journey, starting with the marketing. It's about looking everywhere for levers and not just staring at the page in front of you while saying "How do we make people buy into a yearly subscription?"

Persevere, pivot, or hit the brakes!

This concludes all of the product strategy techniques I will be sharing for validating new business concepts or product ideas. At this point, one of two things should have happened:

- You learned through various experiments that it's worth investing more time and money into your innovative solution. In which case it may be time to start looking for funding or stakeholder buy-in and create a roadmap. This product roadmap outlines the features, timeline, resources, goals, and the vision for bringing your product to market. If you are new to product management, I recommend the book *Strategize* by Roman Pichler for learning about product roadmap practices.*

* Roman Pichler, *Strategize* (Wendover, UK: Pichler Consulting, 2016).

- You learned that you may need to pivot or hit the brakes on your value proposition because you could not find a customer segment who wants it or a business model that supports it. At this point, take a step back and think about how important this concept is to you. Perhaps you should be like my dad and shut down the hot dog stand before it's too late.

Regardless of what bucket you fall into, hopefully you learned some useful techniques for de-risking your strategy before you build a product and as the product matures. Strategy is never over until it's over. As long as your product exists, you must continue to measure value using key performance indicators (KPIs) that demonstrate how effectively a product is achieving your business objectives. The Greek philosopher Heraclitus made the assertion that “life is flux” (*panta rhei* in Greek), meaning “everything or all things change.” I believe this to also be true about competitive landscapes, technological innovations, and fickle customers. This is why a strategy needs to be flexible.

Recap

In this chapter, I discussed how a successful strategy relies on your marketing and design teams working together in harmony. That you need to tinker with product funnels for hooking users and hacking growth. You learned how to use landing pages and online advertising campaigns to experiment with business concepts and identify potential channels for customer acquisition. And the biggest takeaway is that you and your team can make great advances through trial and error!

Denouement

*And so, onwards...along a path of wisdom, with a hearty tread, a hearty confidence! However you may be, be your own source of experience. Throw off your discontent about your nature. Forgive yourself your own self. You have it in your power to merge everything you have lived through—false starts, errors, delusions, passions, your loves and your hopes—into your goal, with nothing left over.**

—FRIEDRICH NIETZSCHE

SOMETIMES, PRODUCTS NEVER SEE THE LIGHT OF DAY, AND TYPICALLY never for reasons that you can expect or control. Financial crises, teams burning out, new technologies arriving, personal motivation, broken relationships, and more are a lot of variables beyond a UX/product strategy that *will* come into play.

The startup Metromile,[†] which you met in Chapter 1, is still the leading pay-per-mile insurance company, but they have been rapidly expanding into the B2B world of enterprise. Now their former competitors are becoming their partners: they are helping other insurance carriers and OEMs with digital transformation by licensing their Claims AI platform. They have also partnered with Ford to provide owners of connected Ford vehicles with personalized insurance without the need to install additional devices.[‡]

For Volkswagen, I recently had lunch again with Sebastian. He's been heading the Business Innovation Studio out of his home in Berlin since the start of COVID-19. The business innovation studio is still growing,

* Friedrich Nietzsche, *Human, All Too Human: A Book for Free Spirits*, English ed. (New York: Charles H. Kerr, 1908).

† Metromile Inc., <https://enterprise.metromile.com>.

‡ “Say hello to connected car insurance,” Metromile, www.metromile.com/partners-ford.

with an international team in different locations. They continue to connect the dots between UX/product strategy and business innovation while Volkswagen is moving in-house for their software development, creating a cloud-based operating system called vw.OS to support their vehicles across the entire Volkswagen Group.

For my USC students—like Ena and Bita before them—this was just their class project. So when it was over, that was the end of it. However, Nico surprised me. He continued to develop his vehicle-sharing concept and has even filed for a patent. For Jessica, who was my top student, I found it hard to say goodbye to her when she graduated. So I hired her to help me write this book. You can find a playlist of 10 of our cowriting/editing sessions on YouTube* if you’re curious.

For other product makers, the road is bumpier. Jared tried to conquer his blue ocean in the sharing economy like Airbnb did, but the mental model proved tough to shift. After four years of amassing customer experience expertise with TradeYa, he went back to leading teams as a growth marketer.

I think it’s important to remember that there are many challenges in life—some professional and personal—and we can’t know how they will shape our paths forward. Take, for instance, my maternal grandfather, Alex Zindler. He was born in 1907 in Tarnopol, Poland (now Ternopil, Ukraine).

His earliest memory was watching the walls of his home crumble apart under heavy artillery during one of the many large-scale targeted attacks, or pogroms, against Jews. During one of these pogroms, his younger siblings were all killed.[†] His father died before he turned six. Then came World War I (1914–1918), which lasted until he was 11 years old. His country’s name, the national language, and the street signs changed seven times while German, Austrian, and Russian forces surged back and forth, stamping their identity upon the town.[‡]

* Jaime Levy and Jessica Luponow, “UX Strategy (2nd Edition) Book Editing Sessions,” YouTube, 2020, <https://oreil.ly/EzdoR>.

† “Ternopil,” Wikipedia, <https://oreil.ly/RnqZT>.

‡ “Tarnopol,” Jewish Virtual Library, 2008, <https://oreil.ly/WqEwb>.

In 1923, when Alex was 16, he and his mother, Ronya, fled Poland to avoid suffering further persecution. In search of a better life, they made their way by train to Antwerp, Belgium, and boarded a ship bound for Quebec City, Canada. Tragically, though, on the way to North America, Ronya contracted cholera and died. A heartbroken Alex vividly remembered watching his mother be buried at sea.

Alex arrived in Quebec City a penniless, non-English speaking orphan with the threat of deportation back to a country he had just fled. Thankfully, a priest on board vouched for him so that he was able to stay. But Alex had to pay back the huge cost of the ship's passage to the priest, an enormous financial debt. To do that, he apprenticed as a tailor in Toronto for two years. By his late teens, he was enjoying his freedom, making lots of friends, and had taken up boxing as a hobby (Figure 10-1).

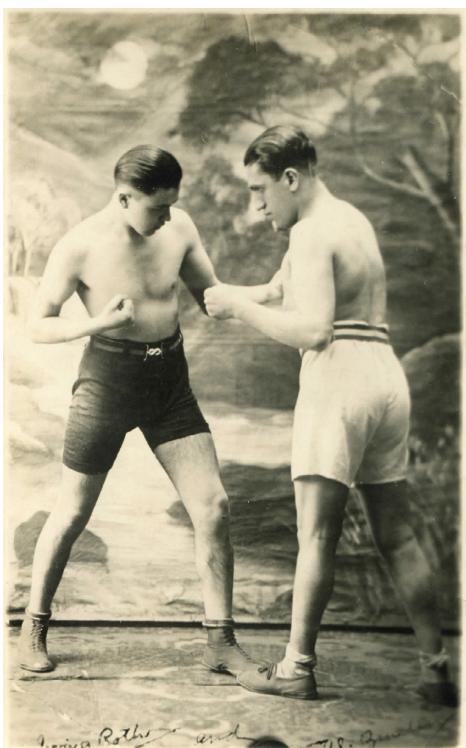


FIGURE 10-1

Photo of Alex Zindler (right) and his friend Irving Roth in 1925

For several years he practiced boxing, but a blow to his face during one of his fights caused a serious cataract to develop in one eye. After a botched surgery to repair it, Alex found himself blind in that eye, with

only a weak eye to get by. Many would have become discouraged or let this physical handicap limit their activities. But not Alex. He married, settled in Winnipeg, Manitoba, and had three children. To support his family, he worked with difficulty for more than 25 years as a dry-cleaner presser. In 1957, at the age of 50, Alex suffered a major heart attack and became completely blind. Two years later, his wife passed away, leaving him alone to raise their youngest son.

But my Grandpa Alex didn't let these new tragedies trap him into a life of despair or failure. Instead, he faced his fear and got out of the house. Alex took mobility training so that he could travel independently by bus. He joined a blind bowling league and exercised at a gym. He encouraged his son to obtain the best education possible, because learning was everything to him.

But it was technology that gave Alex the most freedom. He was a true audiophile, buying the best possible gear for recording audio and listening to his massive record collection. He became a voracious consumer of books on tape and devoured the latest *New York Times* best-selling books.

In his 60s, through a nonprofit cooperative organization of recorder owners called the Voicespondence Club, Alex's social network expanded. Club members worldwide would use reel-to-reel tapes (and later cassette tapes) to exchange stories about their daily lives, political meanderings, and even bootleg musical recordings. The club was basically the analog version of Facebook-meets-Napster. The cassette tape also was how he corresponded with my family in Los Angeles from Canada. My grandfather passed away in 1981 when he was 74. But thanks to his recordings that I heard as a child, I'll never forget his Polish accent and the uplifting stories he shared.

Whether you are an entrepreneur, product manager, or designer, building a digital product is a deeply personal path that can seem like a make-or-break life event. We pour our savings, health, and emotions into value propositions that we hope will change users' lives. But as inventors, we need to accept that failure, while an insurmountable barrier to some, might be an essential part of our product's journey toward success. We need to be like my grandfather—a man who did not allow the difficulties in his life to define the outcome of it. Instead, he kept pivoting and living his life to the fullest, and he even found a means of using technology to do so.

Lessons Learned

- Things don't always go as planned. We need to be agile and find new ways to move forward. Embrace life's challenges. Keep your mind active.
 - Don't overlook opportunities to use everyday technologies in new and unexpected ways that can improve users' lives and help solve real problems.
 - We are ultimately in charge of our lives, and we are defined by how we choose to live them. Our existence is what we make of it. Why waste it?
-

[Appendix]

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About the Author



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Colophon

The animal on the cover of *UX Strategy*, 2nd Edition, is the black-backed jackal (*Canis mesomelas*). This species of jackal is native to separate regions of the African continent in the south and east. Jackals are the oldest group in the genus *Canis*, which also includes dogs, wolves, and coyotes.

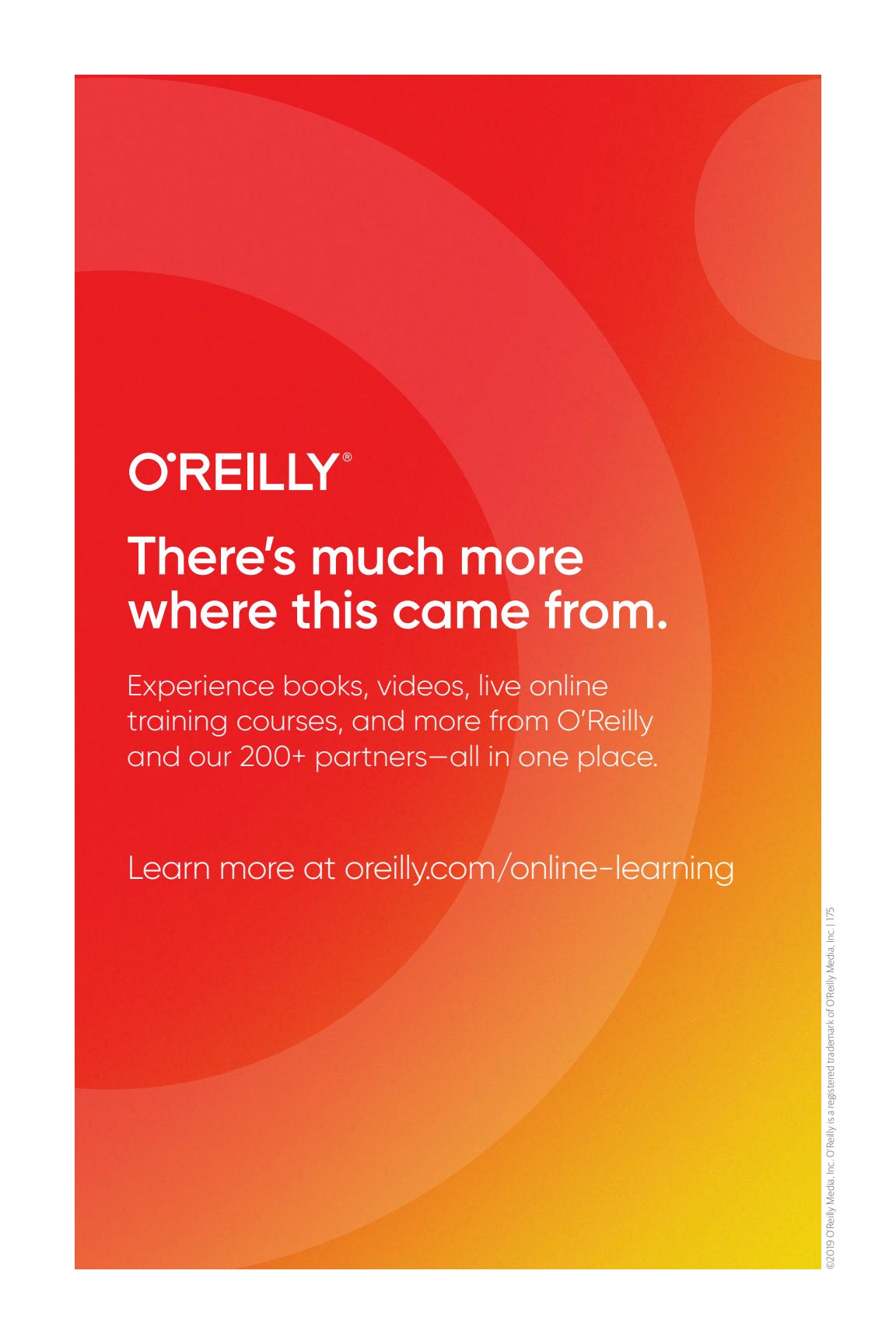
Black-backed jackals resemble foxes and coyotes in aspects of their size, appearance, and habits. They average 15 inches tall at the shoulder and 30 inches in length, and weigh about 20 pounds. This species gets its common name from the black saddle of fur that runs from its shoulders to its tail on its otherwise reddish coat. They have distinctively large, fox-like ears.

Jackals are omnivorous, opportunistic feeders that apply their intelligence to hunting their prey. Commonly feeding on small prey such as spiders, scorpions, hares, and rodents, they will adjust their hunting strategy for animals larger than themselves (often those weakened or ill), by attacking weak points such as the throat or legs. Using their size and speed to their advantage, they can also scavenge meals from carcasses being consumed by the lions and leopards that they share territory with. Black-backed jackals also observe villages and farms for opportunities to carry off domestic animals such as chickens, or to rummage through trash heaps for anything edible.

This species of jackal is monogamous, and yearlings sometimes remain to help raise the next generation, allowing for higher pup survival rates. Mating season occurs from late May to August, gestation lasts 60 days, and pups are born between July and October, often coinciding with seasonal population peaks of various prey species. A jackal family group is highly territorial and communicative, using scent marking and vocalizations such as yelping, whining, growling, woofing, and cackling to advertise its presence (the word *jackal* originates from a Sanskrit word meaning “the howler”).

As illustrated by its eating habits, the black-backed jackal adapts readily to a variety of habitats; it also manages to thrive in landscapes dominated by the dangerous presence of lions and humans. Their great adaptability and resourcefulness allow them to thrive almost everywhere, and for this reason they are not endangered.

The color illustration on the cover is by Karen Montgomery, based on a black and white engraving from Wood’s *Animate Creation*. The cover fonts are Gilroy Semibold and Guardian Sans. The text font is Scala; and the heading font is Gotham.



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