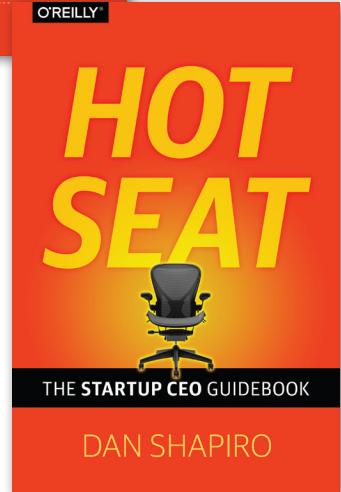
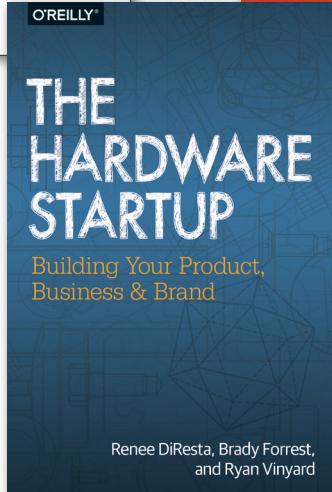
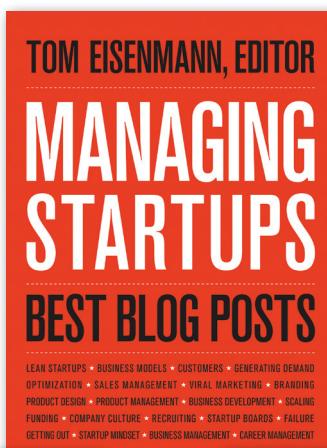
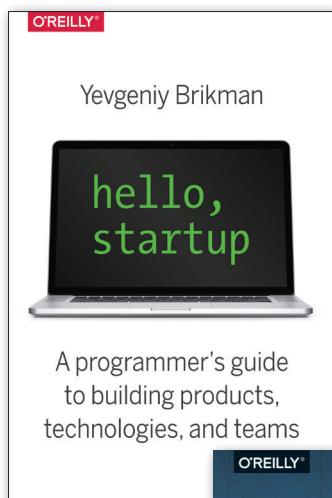


Startup Essentials

A Curated Collection of Chapters from
the O'Reilly Business Library



Startup Essentials

A Curated Collection of Chapters from the O'Reilly Business Library

If you're considering a software or hardware startup venture, this collection provides valuable excerpts from four existing and forthcoming O'Reilly books on the subject. Sample chapters from *Hello, Startup*, *Hot Seat*, *The Hardware Startup*, and *Managing Startups* feature stories, case studies, and salient advice from companies and experts that have blazed trails from successful launch to market acceptance.

These four books also take you through the many dilemmas and points of failure possible with product development, funding, and startup management along the way. You'll dive into sample chapters from:

- *Hello, Startup*—the tutorial for building products, technologies, and teams, based on interviews with programmers from successful startups. Featured chapter: "Why Startups."
- *Hot Seat: The Startup CEO Guidebook*—four-time founder/CEO Dan Shapiro tells stories of startups that have survived and thrived by the advice in this book. Featured chapter: "The Cofounder Dilemma."
- *The Hardware Startup*—two-dozen case studies of real-world startups illustrate successes and failures at every stage of the process. Featured chapters: "Knowing Your Market" and "Branding."
- *Managing Startups*—the best posts from many blogs on technology startup management, compiled by Harvard Business School Professor Tom Eisenmann. Featured chapter: "Why I Left Consulting and Joined a Startup."

Hello, Startup
**A Programmer's Guide to Building Products,
Technologies, and Teams**

[Available in Early Release](#)

Chapter 1. Why Startups

Hot Seat
The Startup CEO Guidebook

[Available Now](#)

Chapter 2. The Cofounder Dilemma

The Hardware Startup
Building Your Product, Business, and Brand

[Available Now](#)

Chapter 3. Knowing Your Market

Chapter 4. Branding

Managing Startups
Best Blog Posts

[Available Now](#)

Chapter 75. Why I Left Consulting and Joined a Startup

O'REILLY®

Yevgeniy Brikman



A programmer's guide
to building products,
technologies, and teams

Why Startups

The age of the tech startup

About 540M years ago something amazing happened on planet Earth: life forms began to multiply, leading to what is known as the “Cambrian explosion”. Until then sponges and other simple creatures had the planet largely to themselves, but within a few million years the animal kingdom became much more varied. [...] Something similar is now happening in the virtual realm: an entrepreneurial explosion. Digital startups are bubbling up in an astonishing variety of services and products, penetrating every nook and cranny of the economy. They are reshaping entire industries and even changing the very notion of the firm.

— THE ECONOMIST [[A CAMBRIAN MOMENT 2014](#)]

At this very moment, somewhere in the world, two programmers are sitting in a garage and creating our future, one line of code at a time. We are in the era of the high tech startup. Silicon Valley is leading the way, but every major city, from Boulder to London to Tel Aviv to Singapore, is trying to build its own startup hub. More than two thirds of young adults around the world are thinking of becoming entrepreneurs [[Telefónica Global Millennial Survey 2014](#)] and if they do, they will have access to hundreds of accelerators, incubators, and more than \$50 billion of angel and venture capital funding per year [[Hollas 2011](#)].

The startup revolution is here and in this chapter, I'll explain why that's something you'll want to pay attention to (reading this book is a good start!). I'll talk about some of the things that make startups great and why you should consider joining one, or even starting your own. To keep the discussion honest, I'll also confess to the things that make startups terrible and why they are not for

everyone. But first, I'll define what I mean by "tech startup" in this book, as the phrase can mean different things to different people.

What is a tech startup?

This book is primarily focused on *tech startups*. The "tech" part is easy to explain. If your company's business primarily depends on *building* technology—whether that technology is the actual product you sell or if the technology is used to sell some other product—you're a tech company; if you primarily *use* technologies that already exist, then you're not. For example, GitHub is a tech company since they build and sell technology that makes it easier for programmers to collaborate. Likewise, TripAdvisor is a tech company: they sell travel products (e.g. hotel rooms, vacation packages, flights), but to make that possible, most of the work is building technology such as hotel pages, user accounts, review storage, photo storage, and search features. A local restaurant is *not* a tech company, even if that restaurant has a fancy website and even if that website is written in Flash and auto-plays music. That's because the restaurant's primary activity as a business is to create food and a great atmosphere for diners, and not technology.

So that takes care of the word "tech", but what about the word "startup"? The prototypical startup is a week old company with two developers in a garage. But the word "startup" is sometimes also used to describe much bigger and older companies. For example, the Wall Street Journal [[Phillips 2014b](#)] uses "startup" to refer to:

- SnapChat: \$10 billion valuation, 2 years old, 20+ employees.
- Uber: \$42 billion valuation, 5 years old, 550+ employees.
- SpaceX: \$4.8 billion valuation, 12 years old, 3,000+ employees.

So it doesn't seem like a startup is defined by how much it's worth (from \$0 to \$42 billion), how old it is (from 1 week old to 12 years old), or how many employees it has (from 3 to 3,000). So what is a startup? To answer this question, let's look at a few definitions from well known entrepreneurs and investors. We'll start with Eric Ries:

A startup is a human institution designed to create a new product or service under conditions of extreme uncertainty.

— ERIC RIES, *THE LEAN STARTUP* [[RIES 2011A, 27](#)]

Creating products and services makes sense, and startups definitely face lots of uncertainty, but so do most local restaurants, which face failure rates similar to most startups [Miller 2007]). You generally wouldn't call the local pizzeria a startup, so we need more. Let's see what Paul Graham has to say:

A startup is a company designed to grow fast. Being newly founded does not in itself make a company a startup. Nor is it necessary for a startup to work on technology, or take venture funding, or have some sort of "exit." The only essential thing is growth. Everything else we associate with startups follows from growth.

— PAUL GRAHAM, CO-FOUNDER OF Y COMBINATOR [GRAHAM 2012B]

In addition to uncertainty, you now have another essential ingredient for a startup: massive growth. The goal of a local pizzeria usually isn't massive growth, but to get enough customers every night for the owner to make a reasonable income, so it's not a startup. On the other hand, even though the food delivery company SpoonRocket has been profitable since 2013 [Sciacca 2013], it was designed for growth and continues to raise more money, spread to new cities, and get new customers. So SpoonRocket is a startup, but will it be a startup forever, or does it become a “real company” at some point? To answer that question, let's turn to Steve Blank and Bob Dorf:

A startup is a temporary organization designed to search for a repeatable and scalable business model. Within this definition, a startup can be a new venture or it can be a new division or business unit in an existing company.

— STEVE BLANK AND BOB DORF, *THE STARTUP OWNER'S MANUAL*
[BLANK DORF 2014]

An established business has a product that has been proven to work in the market, so the focus is on scaling, optimizing, and efficient execution. A startup has no idea what product will work in the market, so the company is primarily focused on experimentation and trial and error—on *searching* for a repeatable and scalable business model. In other words, the final ingredient of startups is that they run in a *search mode*. Now that we have all the ingredients, let's put them together. A “tech startup” is an organization with the following characteristics:

1. **Product:** technology.
2. **Environment:** extremely uncertain.
3. **Goal:** massive growth.
4. **Mode of operation:** search.

For the purposes of this book, I'm not concerned with the age of the organization, how many employees it has, what industry it's in, or how much money it makes. The material in this book will apply to a brand new 3 person company or a new venture within an established 3,000 person company, as long as you're building technology, your environment is constantly changing, your primary goal is growth, and you're running in a search mode. This might not be the way most people think of the word "startup", but I'm not aware of any other word or phrase that captures these ideas better. I briefly considered calling the book *Hello, Organization Designed for Massive Growth that is Searching for a Repeatable Business Model and Building Technology in an Extremely Uncertain Environment*—but *Hello, Startup* sounded a bit sexier, so I'll stick with "startup".

Why you should work at a startup

So now that you know what a tech startup is, why all the fuss? What makes them so great? There are three main reasons you should consider working at, or even starting, a tech startup: more opportunity, more ownership, and more fun.

MORE OPPORTUNITY

Here's a fun fact: you are a cyborg. Over time, your mind and body have been enhanced with artificial components and technology. It happened so gradually that you probably didn't even notice, but if you—and all of your augmentations—were sent a few thousand years back in time, compared to the purely organic beings back then, you would have superpowers. There are the obvious physical enhancements that are possible due to modern medicine, such as glasses, contacts, hearing aids, fillings, braces, dentures, cardiac pacemakers, heart valve replacements, hip replacements, artificial hearts, 3d printed ears, hair implants, breast implants, skin grafts, titanium bones, and prosthetic limbs. But all of that barely scratches the surface of how intertwined you are with technology.

For example, this book, and more generally, writing, are technologies that augment the abilities of your mind. You can extend your memory by "storing"

words on paper. You can extend your computational abilities by working through math problems, step by step, on a whiteboard. You can extend your ability to communicate by sending someone a letter, email, or text message. And every time you draw a diagram, chart, table, timeline, or blueprint, you are, quite literally, using writing to enhance your ability to *think* [Victor 2014].

These days, you do much of your thinking in a digital medium. You might be reading a digital version of this book on a tablet or an e-reader and you probably purchased it in an online bookstore (e.g. O'Reilly, Amazon, iTunes). You might get your news from Twitter and Reddit, put your resume on LinkedIn, file your taxes using Turbotax, get your entertainment from YouTube and Netflix, and stay in touch with your friends and family via GMail and Facebook. Nearby, in your pocket, purse, or on a desk, you probably have a smartphone. You use it to augment your communication (e.g. phone calls, text messages), your memory (e.g. calendar reminders, alarm, photos), your sense of direction (e.g. GPS, Google Maps, TripAdvisor), your entertainment (e.g. music, videos), and your knowledge (e.g. Google, Siri, Yelp, Stocks, Weather). The phone is a part of you. You carry it with you wherever you go, you sleep next to it, you check it dozens of times per day, and you rely on it constantly. In fact, you probably feel lost and nervous without it.

Now head outside. Did you walk past a car, bus, or train? These marvels of technology, which are designed on computers and built in factories full of robots, enhance your ability to travel vast distances in a short amount of time. Now, look up. Somewhere above you, an airplane may pass by, powering its way across the sky using jet engines, radio, and auto-pilot. Somewhere above that, satellites and space stations are orbiting the earth, taking pictures, measuring the weather, and routing phone calls.

But this is only the beginning. Soon, you'll be wearing technology (e.g. Apple Watch, Google Glass, Jawbone Up), locking your doors with your phone (e.g. August Smart Lock, Lockitron, Goji), using your phone to monitor and diagnose diseases (e.g. spot heart attacks early by tracking blood pressure and performing an electrocardiogram straight from your phone [Topol 2015]), relying on robots instead of people for a wide variety of tasks (e.g. replacing cleaning staff with the Roomba Vacuum Robot, replacing FedEx with Amazon's Drone Delivery), using "replicators" to create physical objects (e.g. printing DNA [Lee 2014] at home or emailing a wrench to outer space[LeTrent 2014]), traveling in robot-controlled vehicles (e.g. a self-driving car from Google or Tesla), and traveling to outer space (e.g. via Virgin Galactic or SpaceX).

What do all of these technologies have in common? They all rely on software. In other words, as Marc Andreessen predicted in 2011, “software is eating the world” [Andreessen 2011]. As technology becomes more and more ubiquitous, software companies will take over more and more industries. For example, Amazon dominates the book industry, controlling 41% of all new book purchases and 65% of all online book purchases [Milliot 2014]. In the US entertainment industry, 50% of households now use Netflix, Hulu, or Amazon Prime [Leichtman Research Group 2014] and YouTube reaches more 18-34 year olds than any cable network [YouTube Statistics 2014]. In the travel space, Airbnb has more than 1 million homes listed and is adding 20,000 more per week. Compare that to the InterContinental Hotels Group, which is one of the largest hotel companies in the world (they own the Holiday Inn and InterContinental chains) and has just 700,000 rooms [Griswold 2014]. In the communications industry, WhatsApp users send 7.2 trillion messages per year, compared to 7.5 trillion text messages per year across the *entire* global telecommunications industry [Evans 2014], and Skype users make over 200 billion minutes of international calls per year, which is already 40% the size of, and growing 50% faster than, the global telecommunications industry [Gara 2014]. Software companies are becoming dominant in many other industries too, such as LinkedIn in the recruiting industry, Paypal, Square, and Stripe in payments, Uber and Lyft in transportation, Spotify and Pandora in music, and so on.

The biggest change of all is coming from mobile. The smartphone takes all the software that changes how you live and puts it into a package that includes a fast CPU, lots of memory and storage, unparalleled connectivity (3G, LTE, WiFi, Bluetooth, NFC, GPS), a plethora of sensors (microphone, camera, accelerometer, fingerprint, gyroscope, barometer, proximity), a touch screen, and speakers. And this package is so small and useful that you have it with you at all times and in all places. As a result, mobile has become one of the fastest growing technologies in *human history* (see Figure 1-1).

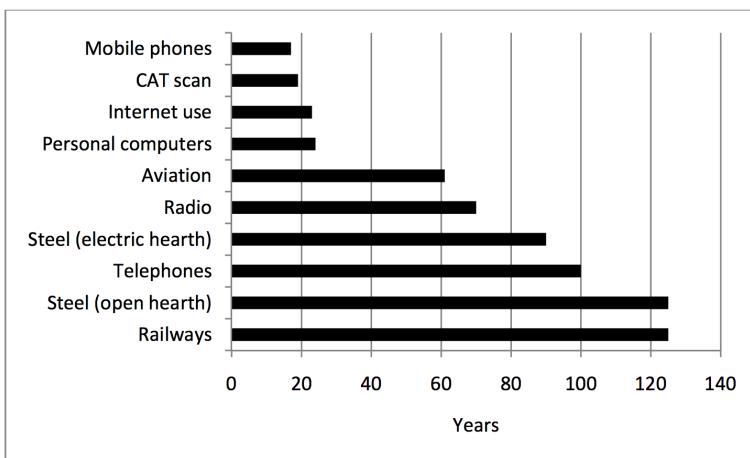


Figure 1-1. Number of years to reach 80% coverage for select technology. Chart courtesy of [Jack and Suri 2010], based on data from the World Bank.

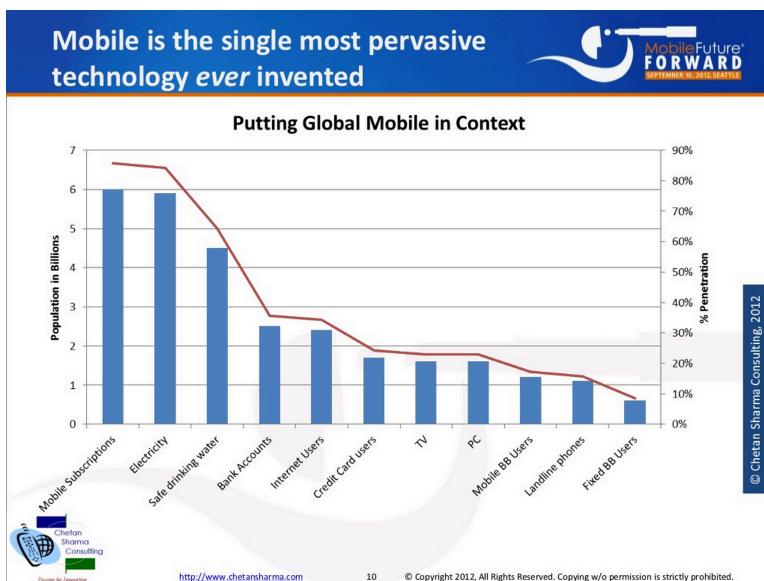


Figure 1-2. Putting Global Mobile In Context. Chart courtesy of [Sharma 2012].

The numbers around mobile are staggering. As shown in Figure 1-2, far more people on earth have access to mobile phones than TVs, bank accounts, and even safe drinking water and toothbrushes [Hall 2011]. By 2020, 80% of the

adults on earth will have access to a smartphone. In other words, mobile is eating the world [Evans 2014].

Tech startups are at the head of a great deal of the software and mobile revolution. This is because a revolution means an enormous amount of change, and change is something startups are much better equipped to handle (and initiate) than big companies. Some tech giants are responding by trying to run parts of their organization like a startup¹, but many will be unable to keep up, and startups will displace them. In fact, every generation of startups is growing faster than than the one before it, as shown in Figure 1-3. Companies like Facebook, Google, Groupon, and Zynga grew faster in a decade than most corporations grew in the entire 20th century [Blank Dorf 2014]. In 1958, the average tenure for a firm on the S&P 500 index was 61 years. Today, that number is down to just 18 years [Innosight 2012].

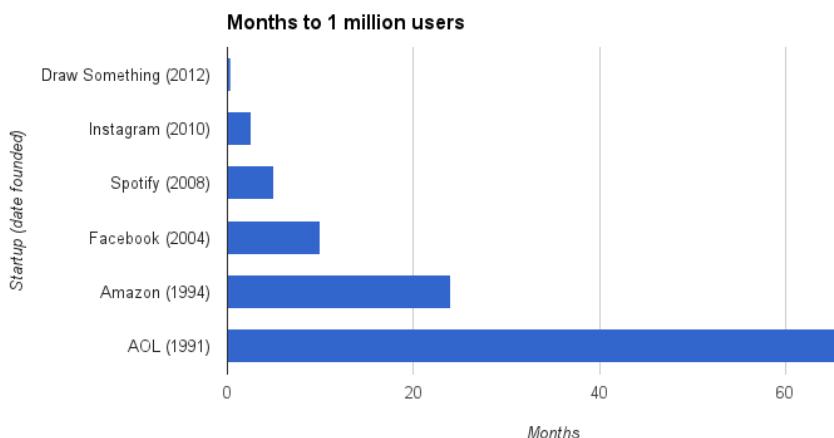


Figure 1-3. Months to 1 million users, based on data from [Fralic 2012].

Startups are reaching billion dollar valuations twice as fast as they did back in 2000, [Van Grove 2014], not because of a bubble, but because it is easier to build and grow a company than ever before. Here are some of the things that have lowered the barrier to entry for startups:

1 For example, Google[x] is a semi-secret branch of Google that is in permanent “search mode”, exploring projects such as wearable technology, self-driving cars, high-altitude Wi-Fi balloons, and glucose-monitoring contact lenses [Gartner 2014].

Open source

Instead of having to write everything from scratch, a modern startup can leverage the code in over 10 million open source repositories [Doll 2013]. Many of these repositories are developed, tested, and documented by a large community of developers, which means you not only save time by using open source, but you also get access to projects that are much larger and higher quality than anything you would be able to build in-house. See [Chapter 5](#) for more info on open source and picking a tech stack.

Services

Startups can also leverage hundreds of services that make it dramatically easier and faster to get up and running. For example, instead of building your own data center, you can use AWS, DigitalOcean, or Rackspace. Instead of building your own monitoring software, you can use New Relic, KISSMetrics, or MixPanel. Instead of building your own email service, you can use Amazon SES, MailChimp, or SendGrid. And if you need a logo, you can use DesignCrowd; if you need legal services, you can use RocketLawyer; if you need to accept payments, you can use Stripe; if you have to manage customer data, you can use Salesforce; and if you need to provide customer support, you can use Zendesk.²

Distribution

Distribution is easier than ever before, both in terms of marketing your product and in terms of being able to run a distributed company with employees all over the world. For marketing, due to the ubiquity of technology, the Internet, and mobile phones, you have instant access to more people than ever before through SEO, SEM, mobile app stores, advertising, email, and social media channels like Twitter, Facebook, LinkedIn, Reddit, Hacker News, YouTube, Instagram, and Pinterest (see “[Distribution](#)” on [page](#) for more info). For building a distributed company, you have access to a plethora of collaboration tools, such as GitHub, Skype, Google Hangouts, JIRA, Slack, HipChat, Basecamp, Asana, Trello, and many others.

² See <http://www.hello-startup.net/resources/> for a comprehensive list of service-providers, tools, and products for startups.

Information

These days, there is a lot more information available on how to build a successful startup. This includes books (such as this one!), courses (the free online Stanford course [[How to Start a Startup 2014](#)] makes an excellent complement to this book), blogs (especially [[Paul Graham's Essays](#)]), meetup groups, conferences, accelerators, and incubators.

Money

Thanks to open source, services, easier distribution, and more information, startups need far less money than ever before. And when you do need money, you have plenty of options, including not only traditional venture capital firms, but also angel investors (e.g. AngelList), crowdfunding (e.g. KickStart, Indiegogo, Lending Club, Kabbage), and government funding and incentives for startups (e.g. [[Startup-Up NY](#)] and [[Singapore Startups Government Funding and Assistance Schemes](#)]).

All of this means that we are at a remarkable time in history. Software is taking over every industry, smartphones are changing how we live our lives, and startups are able to reach more people in less time than ever before. In other words, software is eating the world, mobile is eating the world, and as a result, startups are eating the world. As a programmer, you have the unprecedented opportunity to join this feast and touch millions of lives by joining a startup and writing some code.

MORE OWNERSHIP

So why not write code at a big, established company? What advantages does working at a startup offer over tech giants such as Microsoft, Cisco, or IBM? Isn't it better to work for a more "stable" company that has thousands of employees, has been around for years, and provides job security?

Well, let's talk about job security. Perhaps your parents or grandparents worked at the same company for 50 years, climbed the career ladder, and retired with a golden watch. You won't have that luxury, because those types of jobs are gone, and have been for a long time. In the US, the average person born in the early 60's held 11.3 jobs between the ages of 18 and 46 [[BLS 2012](#)] and this number might be on the way up, as the average person born in the early 80's has had an average of 6.2 jobs by age 26 [[BLS 2014](#)]. That means that the average job tenure is under 3 years. And big companies don't seem any safer than little ones. For example, in the last few 4 years alone, Cisco laid off 6,000 employees, IBM

laid off 13,000 employees, Microsoft laid off 18,000 employees, and HP laid off 27,000 employees [Tolentino 2014]. Job security is dead.

One piece of advice I got when I was deciding where to go after university was that you should think of Silicon Valley as one big company, with a Facebook department, a Google department, and a bunch of small startup departments. Sometimes, departments get re-orged and don't exist independently anymore, but all the people just join other groups. I think this is a pretty good analogy. People move around quite frequently between different companies here.

If you're even a semi-competent software engineer, you don't really have to worry about the risk of joining a startup. You're probably getting paid a reasonable salary, perhaps not as much as at the biggest companies, but it's going to be enough for you to pay your bills and loans, and to get by. If that startup flops, you just go find another job, so it's not really risky.

— TRACY CHOU, SOFTWARE ENGINEER AT QUORA AND PINTEREST

[CHOU 2014]

The real risk is not losing your job because you joined a tiny startup—after all, there is no guarantee you won't lose your job at a big company—but the risk of losing an opportunity. When you choose to work at one company, you're implicitly choosing not to work at many others. In that respect, the death of job security might not be such a bad thing. If you stay at the same job for a long time, you are probably missing out on better opportunities elsewhere.

At big companies, stagnation is a common problem. You end up doing the same tasks over and over again, so you no longer feel challenged, you stop learning, and you get bored. Moreover, you have little say in what you work on and your contributions usually feel small and unimportant. Working for a large company is bit like being one of the thousands of oarsmen on a large galley ship. You're doing repetitive, back-breaking work, but your contribution is completely lost in the wake of everyone else's rowing. If anyone gets any credit, it's the person at the helm, even though they seem to do little more than wear an impressive hat. And though you've got little say in where the ship goes, when you do make

an effort to make a difference, you find that it's incredibly hard to turn a big ship.

³

In my experience, at larger companies, your success or failure is often based around what group you end up in, if upper management feels that the work being done in that group is strategic, aligns with the business, will matter when earnings come around, that sort of thing. While that's important, I prefer environments where you have more of a say in your fate and your success or failure is based around your ability to execute and build something that the market wants.

— JULIA GRACE, CO-FOUNDER OF WEDDINGLOVELY, CTO AT TINDIE
[GRACE 2014]

At a small company, you usually have much more *autonomy*. You have much more say in what you work on, when you'll work on it, and how you will do it. You also have much less red tape, bureaucracy, and politics. Most importantly, as a founder or early employee of a startup, you get to define the company culture (see [Chapter 9](#)). For example, what is the company's mission and what are your values? Will you be transparent or secretive with your communication? Will you have an open floor plan or private offices? Will you be able to work from home? Will you organize the company using a management hierarchy or keep the company flat? Will you track hours and vacation time or just focus on results? At a large company, most of these decisions have already been made, and you have to live with them. At a startup, many of these decisions will be up to you.

Each decision you make at a small startup has a big impact on the company. Moreover, you'll see your impact sooner because small and agile companies usually have a faster feedback loop than large companies. Every line of code you write and every feature you build will make a visible difference. You're no longer just a small cog in a big machine, but a significant influence on the entire organization. The result is that you will feel more connected to the company's mission and feel more of a sense of *purpose*. It's hard to care about increasing the profit margin of a huge company, but at a small startup where you are responsible for its very survival, it's easy to feel inspired and connected.

³ Apparently, if you're on a fully loaded supertanker traveling at normal speed and you can see an iceberg in your path, it's already too late [[Vella 2013](#)].

Most people are drawn to the technology or the mission more than the money. I think our mission at Coursera stands out above many other companies. We get a lot of candidates that were previously working on advertising systems, high frequency trading systems, and they are like, "This is not what I want to be doing with my life. I'm not helping people." So, I think people get excited about Coursera and the challenges in the education space.

We're solving real world problems, like the lack of access to quality education and the lack of physical infrastructure to teach students. We're doing these learning hubs where we set up Coursera in public spaces, even in remote areas with limited Internet access. We have a segment every week at all-hands where we feature stories about Coursera learners from around the world.

— NICK DELLAMAGGIORE, SOFTWARE ENGINEER AT LINKEDIN AND COURSERA [[DELLAMAGGIORE 2014](#)]

Startups also give you more opportunities for *mastery*. You'll be faced with a huge variety of tasks and you'll constantly have to learn new things as you go. You might be writing database queries one day, designing a UI the next day, answering customer service emails the day after that, and putting together an investor pitch deck in between. You'll develop skills that will be useful for the rest of your career and you'll learn to deal with pressure, stress, and risk. You'll be pushed beyond your comfort zone, which is where learning really happens. This is why many people learn more in 3 months at a startup than 3 years at a big company.

[At previous companies,] I felt like there was all of this architectural cruft that had carried on over the years that would take a massive amount of effort to change, and I was in no position to even start arguing with people what to do about it. So I felt very beholden to decisions of people that came before and what they thought was the right way to do things.

At Foursquare, there was only a handful of engineers, most of the decisions had not been made yet, and I would get to make the decisions and it would be much better. And that panned out. I did get to make a lot of decisions. They weren't necessarily good ones. 3.5 years later, I was like, I'm so sorry, I'm so sorry, don't quit because of this terrible choice I

made 3 years ago. But it was a great learning experience. I definitely learned a lot.

— JORGE ORTIZ, SOFTWARE ENGINEER AT LINKEDIN, FOURSQUARE, AND STRIPE [ORTIZ 2014]

Together, autonomy, mastery, and purpose are three of the most powerful human motivators (see “[Motivation](#)” on page). If you’ve found a job that offers all three, then you’ve found a job that you will love and a place where you can do work you’re *proud* of.

MORE FUN

Startups can be more fun. In a big company, you have a product that already works in the market, so your primary task is to optimize it. In a startup, all you have is a bunch of guesses about what might work in the market, and the focus is on *search*. It turns out that searching is a lot more fun.

A search can feel like a battle of you against the world. Fighting to stay alive creates much stronger bonds than trying to increase profit margins by 2%; struggling to bring something new into the world is more exciting than optimizing something already there; celebrating your first public launch, becoming profitable, or an IPO is far more memorable than the annual Christmas party or the latest performance review cycle.

The coolest day in my life, to be very honest—I mean, Silicon Valley pays well and all that—but the greatest joy I ever got was this call in the middle of the night from one of my co-founders, who said, “someone is paying us 50 bucks!” That was how much we were charging for our software through PayPal and the money had just landed in our account. All I could think was that we made this software, this thing we put online, and now someone is giving us real money for it. I was afraid to withdraw the money because, well, I was worried our software was going to crash and the customer would come back and ask for the 50 bucks back, and I don’t even know if I have 50 bucks, so let’s not touch it.

— VIKRAM RANGNEKAR, CO-FOUNDER OF VOICEROUTE AND SOCIALWOK [RANGNEKAR 2014]

Even the “crappy” days at a startup can be fun. The ghetto office, the need to scrape by on a budget, the constant sense that you have no idea what you’re

doing can all be terrifying, but also exciting. They teach you to appreciate the small victories in life rather than becoming obsessed with promotions or politics.

Some of my favorite memories at LinkedIn are from when I first joined, for the first 2 years at the East Embarcadero office. There were pretty much no benefits and we still loved working there. Lunch was typically frozen burritos or perhaps a random food truck that may or may not show up that day. It was quite a contrast to the lavish treatment of engineers at valley startups these days. That said, we were still treated really well. One of my favorite memories was when Reid Hoffman personally paid for an ice cream truck to stop by the office one summer day to treat the company.

It was a crazy office. It was situated between the dump, an airport, a golf course and East Palo Alto. The bathrooms were flooding all the time. We had multiple break-ins. But it was super-fun. We had scooter races around the office, guitar hero competitions and epic Nerf wars. Ian McNish had this giant bazooka and he would tag you in the back of the head with it. It was almost concussion-inducing.

One thing I really liked was our weekly product all-hands meeting, where all the product managers and engineers would get in the room and just go over the numbers. We launched the recruiter product in around Fall, '05, and we were like, wait, we are making money? People actually want to pay for this? Then we started making a million dollars, and we were like, oh my god, we're making a lot of money!

I just loved that time. The engineering team was maybe 12 people. I felt like I was having the most impact then: learning a ton, producing a lot of code, and just having fun.

— NICK DELLAMAGGIORE, SOFTWARE ENGINEER AT LINKEDIN AND COURSERA [DELLAMAGGIORE 2014]

Startups are inherently about change, so they are more open to doing things differently, which is why the most fun company cultures are usually found at startups and not huge corporations. You've probably heard of the basics available at most tech companies, such as a casual dress code and free snacks, drinks, and meals, but it goes far beyond that. For example, HubSpot regularly hosts talks from thought leaders, reimburses an unlimited number of books for employees, does a semi-random "seat shuffle" every three months, and has an unlimited

vacation policy [[Hubspot 2013](#)]. Evernote also has an unlimited vacation policy, but they go a step further by offering employees a \$1,000 bonus for actually taking a vacation [[Bryant 2012](#)]. At Asana, employees get \$10,000 to customize their office setup, as well as access to in-house yoga, massage, and a full-time on-site chef who cooks customized meals for the employees [[Drell 2011](#)] (check out [Chapter 9](#) for many more startup culture hacks).

Some of these may sound like silly perks, but they have a way of changing what you do from being “just another job” to something more. If you’re lucky enough to catch a ride on a “rocketship”—that is, a highly successful, hyper-growth startup—it can be life changing. For me, LinkedIn was a blur of incredible moments: scaling the site to handle hundreds of millions of members; hackday competitions in Mountain View, New York, Berlin, Amsterdam, and Toronto; the InDay Speaker Series, with talks from Sheryl Sandberg, Marc Andreessen, Ariana Huffington, Thomas Friedman, Mayor Cory Booker, Bryan Stevenson, and even President Barack Obama; the IPO in New York; holiday parties in the Ferry Building, Club Auto Sport, and Giants Stadium; t-shirts to commemorate every product launch and celebration⁴; and much more. At times, it was hard to believe that someone was paying me for all of this.

The fact that startups have the courage to stray from the safe path in an attempt to do something new is what makes them an amazing place to work. And, as shown in [Figure 1-4](#), having the courage to stray from the safe path is also the key to living a remarkable life [[Newport 2012](#)].

⁴ Another alternative title I considered for the book was *How to Never Pay for a T-shirt Again*. See [[Nash 2010](#)] and [[Brikman 2014a](#)] for more info.

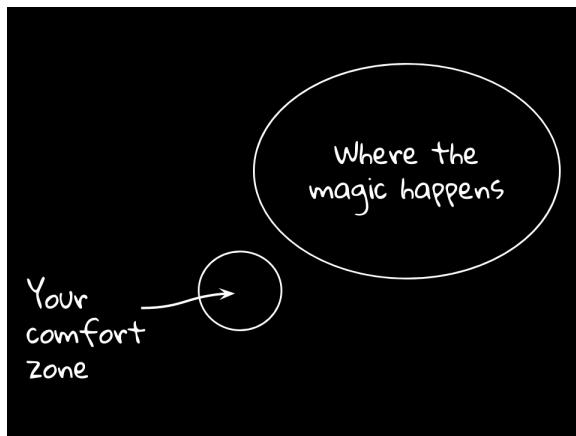


Figure 1-4. Comfort zone

Why you shouldn't work at a startup

So far, this chapter has made it sound like startups are better than established companies in every way. They aren't. Startups have many problems of their own, some of them far worse than big companies. In fact, startups are all about extremes: the highs are much higher and the lows are much lower.

Joining a startup is not for everyone. Founding a startup is for even fewer people. In this section, I'll present some of the drawbacks to the startup world, including the fact that it's not glamorous, that you'll have to sacrifice a lot, and that you probably won't get rich. I'll also discuss some of the trade-offs between joining someone else's startup and founding your own.

IT'S NOT GLAMOROUS

Steve Jobs is on the cover of Time, Elon Musk is on the cover of Fortune, Twitter is constantly on TV, and there is a movie about Facebook. Tech entrepreneurs have become the new rock stars—some programmers even have agents [[Widdicombe 2014](#)]. For the most part, that's great. Anything that gets kids excited about technology is a good thing, and an entrepreneur or programmer is arguably a better role model than a rock star or an athlete. But, as is often the case with the media, it creates a very distorted image of what the startup world is really like.

Seeing entrepreneurs on the cover of every magazine creates the myth of an entrepreneur-hero who single-handedly comes up with a brilliant strategy, surmounts all obstacles, defeats all competitors, changes the world, and becomes rich in the process. Movies like *The Social Network* portray startup life as an end-

less series of parties and successes. In reality, no entrepreneur and no startup is actually like that. For one thing, the vast majority of startups fail. And of the few startups that do succeed, it's not because they had a single hero with a "eureka" moment, but because there was a team of people grinding it out day after day after day, constantly iterating and evolving the product and the company. The true story behind every startup includes a huge number of missteps, failures, pivots, arguments, and fights. Occasionally, there is betrayal, backstabbing, and massive fallouts. Always, there is fear, stress, and pain. And in the end, the winner is usually not a brilliant strategist who came up with the perfect plan ahead of time, but a scrappy team that survived even when things did *not* go according to plan.

In other words, a startup is 99.9% hard, unglamorous work. At 11PM on a Thursday, while your loved ones are at home, relaxing in front of the TV, you'll be deploying new code. And at 2AM on a Friday night, while your friends are all out partying, you'll be furiously coding away to fix a critical bug in the release from the night before. And all day Saturday and Sunday, while people with normal jobs take the time to get away from their work by going on hikes and road trips, you'll be afraid to be more than 5 feet from your computer, because a website needs to run 24x7, and you're on call this week.

Large companies have the luxury of hiring specialists dedicated to some of these tasks, but in a tiny startup, just about everyone has to be a generalist, and you'll have to do a little bit of everything. And I mean *everything*, not just coding. You may have to set up cubicles, estimate how much toilet paper to get for the bathroom, learn how to hire a VP of sales, set up payroll, fill out all sorts of legal and tax forms, create pitch decks for investors, design a logo, and a whole lot more. Some programmers love this, as they get to learn lots of new skills, but other programmers would much rather be coding.

In my next life, I don't know if I'd start a company, because I now know all too well what CEOs (and CTOs) of startups do and it's not solving interesting engineering challenges. It's worrying about hard things like business deals, marketing and user acquisition strategies, and negotiating contracts. Even in the CTO role you're rarely the person who is actually building features.

There's a big difference between building a business and solving interesting engineering problems. There are interesting engineering problems in startups, but very frequently, your business will not succeed or fail

based on how well you solve those engineering problems. The exception to this is startups focused on hard scientific problems. For example, I have a friend who has a battery company and his business will succeed or fail based on the scientific breakthroughs they make, as well as how well they run the business. This hard science component is not applicable to 99% of web startups; most web startups succeed or fail based almost entirely on execution, meaning marketing, sales, product, and engineering. We think as engineers that if we can write great code and build something that can scale to a million people that we will be successful and lauded in the community and people will say, "oh, you're so amazing", and they'll want to acqui-hire us for millions of dollars. That's what we read in TechCrunch and that's what we hear about at meetups, but it is very very far from reality.

— JULIA GRACE, CO-FOUNDER OF WEDDINGLOVELY, CTO AT TINDIE
[GRACE 2014]

For developers who have spent their careers at big companies, it often comes as a surprise that much of the work you do at a startup has nothing to do with engineering. Big companies have their own distractions to take you away from coding, such as useless meetings, and heavy processes and methodologies (see “[Process](#)” on page), but at a startup, the non-engineering tasks often aren’t overhead, but an essential part of the job. This work is worth doing to build a company, but it can be mundane. Despite the reputation startups have for being “sexy” places to work, a lot of the time is actually filled with drudge work and tasks that are decidedly not sexy. And the higher up you go in the organization, the less time you’ll spend on the engineering tasks you love.

I love woodworking. I love to build things. When I was young I could stand and stare for 10 minutes at something I had just built and feel proud. That art of creation and the satisfaction of creation, you get a lot of that in software engineering. And I love that. I love getting in the zone, banging out code, realizing it’s midnight, and holy crap, you have this cool thing you’ve just built. As you scale up a business, as the leader of it, you realize you can’t do that as much anymore.

It happens gradually. You don’t really notice it. When it’s just 5 people, you’re spending very little of your time talking to people about career development, thinking about their promotion cycles, the pay rates. As you

get to where you have 50 people, all of a sudden, you find you're doing it 10% of your time. You get to 100 people and now you have 4 or 5 people that are reporting to you that each have 20 people, and now it takes up 50-75% of your time. And then you get bigger, and all of a sudden, you're starting to be the public face of the business. And that crushes the last little bit of coding time you have. If you have to be on the road, talking to investors, doing presentations, and going to talks, the rest of your time gets sucked up. Your schedule becomes so variable that it's hard to get blocks of solid time where you can do honest engineering work. The evolution happens slowly enough over time that, one day you wake up, and you realize, "Oh wow, I haven't coded in 4 months."

— STEVEN CONINE, FOUNDER OF WAYFAIR [[CONINE 2014](#)]

Many developers have trouble transitioning from a coding role to a leadership role, such as CEO, CTO, or VP. If you've never had such a role, you might expect that being part of the executive team will make you feel important, respected, and powerful. You imagine yourself spending all your time drawing up strategies, giving orders, and moving chess pieces around a board, like a five star general. In reality, you'll be more of a salesman crossed with a psychiatrist. You'll spend a lot of time trying to get someone, anyone, anywhere, to care about your company. You'll also spend lots of time listening to your employees, trying to figure out their needs, dealing with their complaints, and figuring out how to motivate them. You will get to make decisions, but many of them will be painful, risky, and unpopular. And no matter how much you try, you'll get some of these decisions wrong. Some people thrive in this sort of environment, but if you're not one of them, a leadership role might not be for you.

People have this vision of being the CEO of a company they started and being on top of the pyramid. Some people are motivated by that, but that's not at all what it's like. What it's really like: everyone else is your boss—all of your employees, customers, partners, users, media are your boss. I've never had more bosses and needed to account for more people today. The life of most CEOs is reporting to everyone else, at least that's what it feels like to me and most CEOs I know. If you want to exercise power and authority over people, join the military or go into politics. Don't be an entrepreneur.

— PHIL LIBIN, CEO OF EVERNOTE [[LIBIN 2012](#)]

IT'S A SACRIFICE

Building a successful startup is incredibly hard. It's hard to hire great people when competing against big companies. It's hard when great people you've managed to hire decide to leave. It's hard to fire people who turned out to not be great. It's hard to motivate people. It's hard to motivate yourself when nothing is working and you're running out of money. It's hard to raise money. It's hard to keep investors from derailing your business once they've given you money. It's hard to focus on the long term direction of the company when you have to worry about short term survival. It's hard to bring a new product into a constantly changing market. It's hard to spend so much time working on something—building it, selling it, marketing it—and still no one seems to take notice. It's hard to fend off the competition when they suddenly do take notice. It's hard to make dozens of decisions every single day, with not nearly enough information, and with each one putting a lot of time, money, and many careers at risk. And it's hard when you make mistakes—and you will make *many* mistakes—because you have no one to blame but yourself.

All of this means that working at a startup involves a lot of sacrifice. Some people manage it better than others, but working at a young startup often means you won't get to see your friends and family as much as you might like and your health may suffer. Startups have ruined marriages, caused mental and physical health problems, and worst of all, even driven some founders to suicide [[Feld 2014](#)]. It rarely gets that bad, but long hours and too much stress are common problems.

I was 26 and ended up in the doctor's office. I was experiencing short-term memory issues. He did some blood tests and he said, "you have the numbers of a 60 year old, so we have a problem." I realized I didn't want to be on that path, so later I told my boss, "Look, I'm leaving. I'm not enjoying myself, I'm working 90 hours a week, and I've been doing it 8 or 9 months." And he said, "Yea, I'm at the doctor with heart troubles myself, so I'm going to probably leave too." I learned that you have to pace yourself at a startup. You have to work hard, but you also have to find a way to do this on a sustainable basis.

— PHILIP JACOB, FOUNDER OF STYLEFEEDER, SOFTWARE ENGINEER AT STACKDRIVER AND GOOGLE [[JACOB 2014](#)]

Startups are an emotional roller-coaster. There are extreme highs and extreme lows. For some people, this is part of the charm. For others, it's more stress than they can handle. It's particularly stressful for founders. If you're an employee of a startup that has failed, it's disappointing, but you shake it off and move on to your next job. But if you're the founder of a startup that has failed, it will feel like you've let everyone down. Your employees gave you years of their lives, your customers gave you their money and trust, your investors funded you, your family supported you, and in the end, you did not deliver. Your dream is dead, and that can be devastating.

Fear is the engine of a startup. There is the constant fear that your best developer will walk out the door and join the competition. [...] There is the constant fear that some of the best people in your team will quit and start your biggest competitor, across the street. [...] There is the constant fear of running out of money. [...] There is the constant fear about your customers. [...] And even when you've gotten your serious round of funding, with a couple of millions of dollars on the bank to finance the growth of your company, and some ace VCs on your board, you're terrified that you won't be able to live up to expectations. [...]

So if you can't live with fear, don't ever go into the startup business.

— PETER HINSEN, FOUNDER OF ECOM, ACROSS, AND NEXXWORKS

[HINSEN 2013]

YOU PROBABLY WON'T GET RICH

Most startups fail. The numbers vary depending on what you define as a “startup” and as “failure”, but the typical failure rate is somewhere around 75% [Gage 2012]. Three out of four times, despite all the pain and sacrifice, the startup goes nowhere. And if you're one of the lucky few that does succeed, you're still unlikely to get rich. That's because in the startup world, the vast majority of the money is funneled into a very small number of winners. In other words, startup returns don't follow a normal distribution, but a power law distribution, as shown in Figure 1-5.

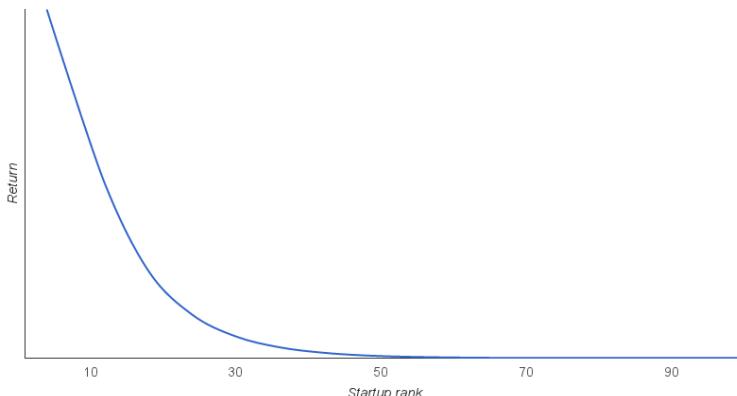


Figure 1-5. Power law

In an analysis of more than 600,000 startups since 2000, just 34 companies—well known giants such as Facebook, Twitter, LinkedIn, and Uber—accounted for 76% of the total market cap [Van Grove 2014]. If you’re at one of these giants, you may get rich, but your odds of ending up at such a company are fairly low. If, instead, you ended up at one of the other startups, even if it was successful, the returns will be small, and will mostly go to the investors (see “[Equity](#)” on page for more info).

You also shouldn’t expect to get rich from your salary. Most early startups pay a lower salary than the market, so if anything, you actually run the risk of making *less* money by joining a startup. If the company is successful and grows, your salary usually will too, but rarely enough to make up for several years of being paid less. And just because you’re an early engineer at a startup, there is no guarantee that you will be promoted to senior positions as the company grows. Most of the VP and CTO level positions go either to the founding team or to “experienced” hires brought in at a later stage of the company to “clean up” the mess and help the company scale.

Startups often involve, for engineers, very long hours, rapidly changing requirements, and tight deadlines, which means the quality of the code they write is generally very poor in comparison to what they’d be able to produce in saner conditions. It’s not that they’re bad at their jobs, but that it’s almost impossible to produce quality software under those kinds of deadlines. So code rots quickly in a typical startup environment, especially if requirements and deadlines are being set by a non-technical man-

ager. Three years and 50 employees later, what they've built is now a horrific, ad-hoc, legacy system hacked by at least ten people and built under intense deadline pressure, and even the original architects don't understand it. It may have been a heroic effort to build such a powerful system in so little time, but from an outside perspective, it becomes an embarrassment. It doesn't make the case for a high-level position.

— MICHAEL O. CHURCH [[CHURCH 2012](#)]

In short, joining a startup to get rich is a bad idea. It's not only unlikely to happen, but also a bad motivation. The desire for money will not be enough to get you through the brutally hard work of building a company. If anything, it can actually reduce motivation, as we discuss in "[Motivation](#)" on page .

I want to remind you that financial success is not the only goal or the only measure of success. It's easy to get caught up in the heady buzz of making money. You should regard money as fuel for what you really want to do, not as a goal in and of itself. Money is like gas in the car—you need to pay attention or you'll end up on the side of the road—but a well-lived life is not a tour of gas stations!

— TIM O'REILLY, FOUNDER OF O'REILLY MEDIA [[O'REILLY 2009](#)]

JOINING VS FOUNDING A STARTUP

As I've mentioned a few times in this chapter, your startup experience will be vastly different as a founder than as an early employee of a startup. Here's the basic trade-off: as a founder, you will have to make 10x the sacrifice in exchange for a *chance* of 10x the reward. By sacrifice, I mean you will be faced with an order of magnitude more of stress, risk, and long hours, and by reward, I mean that in exchange for this pain, you could earn an order of magnitude more money and reputation if you succeed. Founding a company is a very high risk, high reward game, and as most people are not equipped to handle that much risk—or, more accurately, the amount of stress that goes with it—most people should *not* be entrepreneurs, no matter what great ideas they have.

Even if you can handle the stress, there is another factor to consider. While writing this book, I came across a startling fact that completely changed the way I thought about founding a company. As a founder, *if* you get lucky enough to build a successful startup (remember, the odds are roughly 1 in 4), it will take you, on average, 7-8 years to reach a successful exit (i.e. an acquisition or an IPO)

[Lennon 2013].⁵ Of course, it's really only an "exit" for the investors—the founders will usually stay on at least a couple years more.⁶ So here's the rule of thumb to take away from this:

Only start a company if you're willing to spend the next decade of your life working on it.

If you're 20 years old, you'll be working on the company until you're 30. If you're 30, you'll do little else until you're in your 40's. Once I heard this statistic, I went back to my list of startup ideas and threw half of them away. I realized that many of them were just "get rich quick" schemes at their core, and there was no way I'd be able to spend the next decade toiling away at them.

A successful exit isn't the only reason to found a company—as I've mentioned before, it's one of the worst reasons to do anything related to startups—but so many people see startups as a get-rich-quick scheme that, if you take away nothing else from this chapter, remember this: building a startup probably won't make you rich, and if it does, it won't be quick. Success is rare, and when it happens, it takes on the order of a decade.

During that decade, you're going to have to work very hard. Harder than you've worked at anything else in your life. It may be easier than ever to *start* a company, but making it successful is just as hard as ever. Any founder will tell you that bringing a new product into the market, changing user habits, and hiring the right people, all while making ends meet, is one of the hardest things you will do in your life.

I think the hardest thing is that the success function is very discontinuous. For example, you're trying for months to figure out how to accelerate user growth. You try to introduce some features which you think will help make the metrics go "up and to the right", but nothing really works. For ages, nothing happens. And then, suddenly, some massively successful thing happens totally unexpectedly.

⁵ For example, consider the age of some of the most successful startups of the last decade at the time of their IPO's or acquisitions: Facebook was 8 [Facebook 2014], Google was 6 [Google 2014], Twitter was 7 [Twitter 2014], LinkedIn was 8 [LinkedIn 2014], WhatsApp was 5 [Hoff 2014], and Zappos was 10 [Zappos 2014].

⁶ In fact, if a founder tries to leave immediately after an IPO, it will hurt the founder's reputation, the company, and the stock price, so most founders stick around for at least a few more years. As for acquisitions, most of the contracts involve a "cliff" or "vesting period" of 1-2 years to help transition the company over. The founders only get the financial rewards of the acquisition after this period, so this sort of contract is usually referred to as the "golden handcuffs".

Since you have no idea in advance where these discontinuities are going to be, it seems then that the only reasonable behavior is to work really hard. You have a finite length of runway, so if you can maximize the amount of stuff you can get done, that maximizes the chance that you're going to hit that next discontinuity before you die. And if you die before you get to that next discontinuity, you know that you worked so hard that you couldn't have possibly done anything else to get there faster.

— MARTIN KLEPPMANN, CO-FOUNDER OF GO TEST IT AND RAPPORTIVE
[KLEPPMANN 2014]

Because the success function is very discontinuous, working at a startup, especially as a founder, is a bit like running a marathon with a blindfold on. You know it's a long race, but you can't see the mile markers or a clock, so you have no sense of how far you've gone, and you're not even sure if you're running in the right direction—but you can't slow down and take a break, or someone will surely pass you. So you keep chugging along as fast as you can, chasing after that next discontinuity.

For most programmers, joining someone else's startup gets you *enough* of the benefit with far fewer drawbacks. In fact, rolling the dice on *several* startups is one of the best ways to have a fun and successful career as a programmer. If you start a company, the odds that it's the next Google or Facebook are very low, but as a founder, you're committed, and you'll have to stick with it for 5-10 years to find out. During that same time period, as an employee, you could join 3 or 4 different startups for a few years each, and significantly increase your chances of finding a successful one.

The 100th engineer at Facebook made far more money than 99% of Silicon Valley entrepreneurs. Small slices of gigantic pies are still themselves gigantic.

— DUSTIN MOSKOVITZ, CO-FOUNDER OF FACEBOOK AND ASANA [MOS-KOVITZ 2013]

Just as there are lawyers who chase ambulances, there are engineers in Silicon Valley who chase IPOs and acquisitions. This isn't a bad thing. These engineers hop from pre-IPO company to pre-IPO company and they contribute serious value to each one by building products and helping to scale the organization. In return, they get to develop a wide variety of skills, enjoy the unique cul-

ture at each company, accumulate some stock options, and, after a few years, they walk away with a ton of fun experiences under their belt and, in many cases, a fair bit of money in their pocket.

If you knew which engineers to pay attention to, you could probably get pretty good at predicting which companies will soon have a massive IPO or acquisition. For example, in the last few years, I watched a few friends of mine rotate through LinkedIn, Facebook, and Twitter, joining each company a few years before it had an IPO. How did they know? There are three primary signs. First, look for products you and most people you know are already using. Most developers are “early adopters”, so if a lot of them are flocking to a particular technology, there’s a good chance the rest of the world will soon follow. Second, look for companies that have raised a lot of money through multiple rounds of financing. The more money invested, the more the investors will want to see big returns, and the most common way to make that happen is for the company to go public or get acquired. Third, look for companies that are growing at an incredible pace and will need more money to sustain that growth until they become profitable.⁷

If you’re more likely to get rich and have fun by joining someone else’s startup, is it ever a good idea to start your own? Yes: when you simply can’t *not* do it [[Moskovitz 2014](#)]. That is, the best reason to start a startup is because you are so passionate about an idea that you *must* bring it into the world. You’re doing it not for the fame or the fortune, but because it’s something important enough to you that you are willing to go through all of the pain, risk, and sacrifice to make it happen. In the words of Tony Gaskins Jr., if you don’t build your dream, someone will hire you to help build theirs [[Gaskins Jr. 2012](#)].

Just make sure not to confuse the dream of accomplishing a specific *mission* (see “[Mission](#)” on page) with the dream of building a startup. Sometimes a startup is the best way to accomplish your dream, but in many cases, you’d be far better off starting a lifestyle business (e.g. a work-from-home consultant), or joining someone else’s company, or doing research at a university. A startup is just a means to an end [[Payne 2013b](#)].

⁷ A few companies to watch in 2015 and 2016, at least based on their fundraising, growth, and recent developer migration patterns, are Uber, Airbnb, Square, Stripe, DropBox, Pinterest, PagerDuty, Slack, Zenefits, and GitHub.

Recap

Do you know the best thing about startups? [...] You only ever experience two emotions: euphoria and terror. And I find that lack of sleep enhances them both.

— MARC ANDREESSEN, CO-FOUNDER OF NETSCAPE, LOUDCLOUD, OPS-WARE, AND NING [HOROWITZ 2014]

You've now seen both the light and dark sides of startup life. Startups can be more fun, but they can also be more stressful. You get more autonomy, but you also get more grudge work. You could make a huge impact on your career and the world, but you are also very likely to fail. The question is, is a startup right for you?

There is only one way to answer this question: try it. That doesn't mean everyone should go out and *start* a company, but at least once in your life, just about everyone should work at a startup. And for that matter, everyone should also work at one big, established company. Startups aren't for everyone and big companies aren't for everyone, so it's a good idea to try both to see which one fits you.

I've worked in large companies and I've worked in small companies. I think it's valuable to go between the two because there are different skills that you have to rely on. In startups, there's this sense of energy, you're doing new things that are resonating with people, changing how they communicate, or travel, or whatever it happens to be. When you're working at larger companies, you need the ability to communicate and think about the perspectives that other people have. But I think sometimes, when you just want to get something done, it's nice to have a bank account with 3 million dollars and nobody in your way.

— PHILIP JACOB, FOUNDER OF STYLEFEEDER, SOFTWARE ENGINEER AT STACKDRIVER AND GOOGLE [JACOB 2014]

Perhaps after trying it out, you'll find that startup life is for you. Maybe you'll even be inspired to become an entrepreneur. In some sense, everyone is *already* an entrepreneur. Adam Smith wrote that every person "becomes in some measure a merchant" [Smith 2003]. You sell your time, knowledge, and resources to others, either to someone else's company or to customers of your own company.

The days of working at the same job and climbing a career ladder for many years are over. Self employment is at record levels [Monaghan 2014] and the peer-to-peer economy is on the rise, powered by startups such as Uber, Sidecar, Lyft, Airbnb, TaskRabbit, Homejoy, and Etsy.

Of course, renting a room out in your house or doing consulting work is not the same as creating a startup, but as entrepreneurship becomes more ubiquitous, it will hopefully make people more accepting of startups and less attached to the false sense of “job security” of larger companies. You may even realize that the modern notion of a “job” as some entity that floats around and that you’re entitled to after college, makes no sense. There are no jobs. There are just things you can do that someone else finds valuable, so they’ll pay you for it. The fact that the payment comes from a big company, a startup, or self employment is just an implementation detail.

When you grow up you tend to get told the world is the way it is [...] Try not to bash into the walls too much. Try to have a nice family, have fun, save a little money.

That's a very limited life. Life can be much broader once you discover one simple fact: Everything around you that you call life was made up by people that were no smarter than you and you can change it, you can influence it, you can build your own things that other people can use.

Once you learn that, you'll never be the same again.

— STEVE JOBS [JOBS 2011]

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HOT SEAT



THE STARTUP CEO GUIDEBOOK

DAN SHAPIRO

The Cofounder Dilemma

It's almost a foregone conclusion now: startups need cofounders. Paul Graham, founder of the elite startup accelerator Y Combinator, observed, "Have you ever noticed how few successful startups were founded by just one person? Even companies you think of as having one founder, like Oracle, usually turn out to have more. It seems unlikely this is a coincidence."

It's true; there are a lot of multifounder successes and just a few solo acts, like Jeff Bezos at Amazon. Personally, I've tried it both ways. At Ontela, I was joined by two terrific cofounders, Brian and Charles. At Sparkbuy, I incorporated the company and raised money as a one-man show, then brought on a top-notch CTO, Scott Haug, the day that the investment round closed. Robot Turtles, my Kickstarter experiment turned board game company, was a solo endeavor from start to finish. And my latest endeavor, Glowforge, has me paired up with two epic cofounders, Mark Gosselin and Tony Wright, each with multiple successful startups under their belt.

The cofounder decision isn't an easy one. There are a lot of good reasons to have cofounders—and one big bad reason not to. Starting with the positive, then...

Cofounders Are Top Talent

You can usually get better talent, sooner, by playing the cofounder card.

In the case of my current company, Glowforge, I could have hired a CTO to help me build the first 3D laser printer. But someone like Mark Gosselin just isn't available as an employee. His last company, Cequent, sold for \$112 M. He'd designed and manufactured tens of millions of dollars' worth of hardware. He'd actually built a combination CNC mill, 3D printer, plasma torch, and laser cutter

in his own garage, for fun, after selling his company. He wasn't going to join someone else's business. If I wanted him, he would need to be a founder from the start.

Similarly, Tony Wright is a well-known product genius, founder of companies like RescueTime (part of the earliest Y Combinator batch) and Cubeduel (a viral hit in the recruiting space, of all things, that was snapped up by an acquirer within months). A four-time CEO himself, I wasn't going to convince him to run product and design for Glowforge with an employee badge.

In short, serial entrepreneurs with a history of success may not be interested—at least not until later, after the company's shown some success—unless they're cofounders.

Top talent engaged at big companies really have no idea what they're getting into, but it's easier to sell them the dream of cofounding a company than to persuade them to come aboard as an employee.

Big-gun senior operatives who can demand salaries of a quarter million and up on the open market are probably priced out of the range of an early hire. But a cofounder position can shake them loose.

Even your closest friends may find it much easier to make the jump to a startup if they're a part of the founding team with you, and not bolted on post-founding as an early hire.

Startups have very little ammo when it comes to recruiting, and awarding cofounder titles is the single most effective tactic available to entice amazing talent. Even if you're putting together a team of brilliant college grads straight out of school, you're going to have a much easier time pulling things together if you're recruiting for founders, not for employees.

Cofounders Save Cash

I have good news and bad news.

The good news is that adding cofounders is going to cost you meaningfully fewer dollars than hiring someone as a full employee. When a company is first beginning, founders often work for next to nothing. In many cases, they actually work for nothing, although this is technically illegal under minimum wage laws. One of the great things about adding cofounders is that you get to bring a whole lot more horsepower to the table without taking a huge hit on your balance sheet.

Of course, this applies at the start, when you're working on the cheap. But the bargains keep rolling in as the cofounder stays on over the years. Well after the company has been firmly established, it will, on average, pay about \$25K per

year less for a founder than a nonfounder, according to Noam Wasserman's *The Founder's Dilemmas* (Princeton University Press, 2013).

Some people feel it's unfair that founders take such a hit in terms of cash compensation after the company is large and profitable. Wasserman postulates that this is a state of affairs forced on mature startups by investors, who know that the founders are so emotionally committed that even if they are underpaid they will still not walk away.

On the one hand, founders get a comparatively huge slug of equity to offset their lower salary. On the other hand, they earn that equity by taking early-stage risk, so it's not clear that they should suffer twice. On the third hand, that's the market, so it's hard to argue with.

Now here's the bad news: as you probably guessed, the founder discount applies to the CEO too.

Investors Love Cofounders

There are some in the entrepreneurial world who like to debate the relative merits of various startup accelerator programs, but all agree that Techstars is one of the best. Presumably they've learned a thing or two about what makes a startup sing.

I started reading applications for Techstars in 2011, considering applicants for the Seattle summer class. It's a finicky process, as much art as science. How accomplished are the founders? Does their application show ingenuity? It's OK if the company concept is less than exciting—ideas can change—but does it reflect thoughtful potential?

The one thing that's almost nonnegotiable is that Techstars does not generally accept companies without cofounders. It's not a hard-and-fast rule and it's not written down anywhere, but it's there nonetheless. In 2012, for example, the Techstars companies all had two or more founders, with one exception: Linksy, whose lonely founder was Adam Loving. He was admitted after a flurry of introductions by Techstars to a number of eligible cofounders, with a relationship consummated and shares exchanged before the beginning of the Techstars session.

You see, ultimately Techstars is an investor, and to investors, cofounders are a no-brainer.

First, bringing in a cofounder is a crucial test. If the CEO can convince an all-star cofounder or two with deep domain expertise to quit their jobs and work at

her company for a pittance, that bodes well for her future sales and hiring activities.

Second, as noted previously, it allows the startup to hire better people, cheaper, than it would be likely to get otherwise.

But the third point is the most impactful. A first-round investor typically gets about 20%–35% (let's call it 30%) of the company's equity. Another 15% or so goes to the employee stock pool, to be used for hiring later employees.

That means the investor will see 55% of the company go to the founding team. The only question is—how many founders do they get in exchange for that equity?

Think about it—founders' primary compensation is equity, and if there are two, or three, or even four cofounders, that equity is just divided up. The investor is getting a screaming deal—they don't give anything more up; they just get more cofounders, working for cheap, splitting the same equity.

While I've never heard any investors say this with their "out-loud" voices (and to be fair, Paul Graham and a number of other investors have stated that more than three cofounders is suboptimal), I know that this is a consideration that weighs heavily on their minds. Equity is money, and investors get more for their money when cofounders split it.

The Split Is the Downside

Joe Heitzeberg was the founder of Snapvine, which sold to Whitepages for \$20M. When he began work on his second company, MediaPiston, he started looking for a cofounder.

It was his wife, Natalie, who steered him to the solo founder path. Joe related the story to me over bourbon one night, sitting at his dining room table. Natalie, a vice president at Citigroup, smirked in the background as he recounted the tale.

"Joe, if you bring on a cofounder, how much of the company would they take?" he recalled her asking.

"Well, I've done a lot of the early work already—built a prototype, made some sales, proven the market... let's say 30%."

"And if you sold that 30% to investors instead of giving it to a cofounder, how much do you think they would pay for it?" she continued.

"I think I could get a good valuation this time around, but let's say \$1.5 million," Joe replied.

"OK. So what you're telling me is that you think it's better for your company to have a cofounder than \$1.5 million dollars, right?"

Joe founded the company solo. He never raised any money. And when oDesk acquired MediaPiston, Joe kept every dime.

That's the downside of cofounders. They're really, really expensive.

It's not easy to make the decision about whether to seek out a cofounder, but here are the three questions that will get you to an answer.

First Question: Are You an Army of One?

The founding team is going to have to climb quite a few hills. Design the product. Create it. Get traction. Raise investment. Are you going to be able to manage all of that yourself?

For some people, the answer is yes. You may be able to build and market the product successfully enough that you can attract investment (or get to profitability) on your own. This is a factor of both the person and the product.

Instapaper founder Marco Arment created the app himself and watched it grow to astronomical success without a single additional employee, let alone cofounder. Gabriel Weinberg, the founder of search engine DuckDuckGo, kept it as a single-person show for three years until he took outside investment and made his first hire. Both of those projects could have supported multiple cofounders, but had one person strong enough to carry the weight solo.

I asked myself this question when I started working on the Robot Turtles game. I was tempted to add someone to the “founding team.” It would mean less work for me to do, a broader skill base to draw from, and so on—but I wasn’t sure the project was big enough to support another person.

To make the decision, I listed what I’d need to do successfully to make the Kickstarter campaign work:

- Design and playtest the game
- Produce artwork for both the game and the campaign
- Write/direct/produce a video for the Kickstarter page
- Manage publicity, PR, outreach, social media, and other marketing
- Find and manage a manufacturer and shipping partner
- Handle product support

Then I asked myself if I was confident that I could handle all of these tasks myself. The answer, of course, was “hell no.” But I decided to act as a single

founder anyway, because I was excited about learning all of these things, and Robot Turtles was all about creating something for my family while learning something new. So, for the purposes of this project, I decided I would be a founding army of one, bringing on short-term contractors to help with areas where I was inept, like artwork and videography. More importantly, I was comfortable with failing, and learning in the process, so it was OK for me to take the risk of not having a cofounder's help.

I faced the decision again for Glowforge, but the calculation was totally different. This time, the company needed:

- Injection molded plastics
- High- and low-voltage power supplies
- Onboard microprocessor architecture
- Pneumatic and hydraulic subsystems
- Coordination with factory schedules
- Laser physics

And that was just the hardware. Further, I did not find Glowforge for a learning experience: I founded it to create a multibillion-dollar company that will fundamentally change the way products are made and empower a new generation of creators. It was no contest: I needed A+ cofounders.

Second Question: Do You Have Access to a Solid-Gold Cofounder?

First, consider diversity. It's easy to find people with the same skills and background that you have, but a pair of MBAs will have a devil of a time outperforming an MBA/engineer team. If your experience is with one company, it can be helpful to get a different set of experiences on hand by working with someone from a different company. If you're a white dude, not only will you expand your perspectives by working with someone other than another white dude, but you will find yourself with a bigger network and pool of talent to draw from when hiring.¹

¹ No secret that this is easier said than done—I'm frustrated with myself that despite trying hard to find diverse teammates, of the four cofounders I've worked with in my career, only one belongs to an underrepresented minority group. At Glowforge, I'm zero for two.

Second, consider compatibility. If one of you is a serial entrepreneur with a multimillion-dollar exit and the other is a lifetime big-company worker without a big savings cushion, it's going to be hard to agree on things like when to take salary or when to sell the company. If one of you is a nine-to-fiver and the other never sleeps, it may be hard for you to respect each other's contributions. Company culture is born of the founders (as we'll see in [Part III](#)), and incompatible values can build deep stresses into the company infrastructure.

Finally, consider raw capability. To win, you're going to need to build a team of the best and brightest. If you make compromises early on, at the founding stage, you're toast. You simply can't settle here; you should always try to recruit better than you deserve, but there is simply no room for error when it comes to cofounders.

Third Question: Will You Trade Cash for Camaraderie?

This is the hardest question to answer. If you don't need a cofounder to round out your skill set or to ensure funding, it's hard to argue that it makes financial sense to bring one on, versus hiring people as employees.

The one thing you can't buy is someone else who knows what you're going through. The hot seat is lonely and painful at times, and a cofounder is the best person to ease the burden.

Is that camaraderie worth trading away half of the ownership of your company?

That's the final question.

And a concluding note on that: MediaPiston, Joe's solo startup, wasn't Joe's last company. He's since launched Poppy,² a 3D camera and viewer accessory for iPhones—with a cofounder.³

A Finicky Note on the Linguistics of Cofounders

The "co-" is clunky. Aren't founders just founders? Should they have some special label because they weren't the only ones?

² After a six-digit Kickstarter campaign success, the gadget is now available at <http://poppy3d.com>.

³ Former Urbanspoon founder Ethan Lowry.

Personally, I only use the “cofounder” term when it’s a helpful label in talking about more than one at the same time, as in “My cofounders at Glowforge.” If I’m describing them individually, I’ll describe them each as founders. That is the convention I’ll use throughout this book.

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Building Your Product,
Business & Brand

Renee DiResta, Brady Forrest,
and Ryan Vinyard

Knowing Your Market

YOUR MENTORS, TRUE BELIEVERS, EARLY ADOPTERS, AND THE BROADER hardware-founder community will all provide invaluable feedback in the early stages of idea validation for your product. However, since your goal is to build a profitable company, one group of people is clearly the most important: the customers. They're the people who will give you dollars. You can't have an individual relationship with all of them, unlike the groups discussed in [Chapter 2](#). However, you must know everything you can about them—who they are, what they need, what drives them, how much they're willing to spend—so it's extremely important to have conversations with them early in the product development process.

The time to identify and talk to potential customers is long before you're thinking about moving toward manufacturing. The lessons you learn from these discussions will shape the product. They'll also be extremely important for branding and marketing strategies, setting a price point, and identifying the distribution channels that are right for your company.

In the preprototype stage of customer development, the primary question you're trying to answer is, "Who is likely to buy my product?" You can't be all things to all people, so it's important to identify the type of customer who is most likely to spend money on the first version of your widget. You'll revise your offering for mass mainstream adoption somewhere down the line.

The Who, What, and Why of Your Product

Building any company—hardware or software—will require you to understand your market, know your customer, and build your community. Your goal is to find both problem/solution fit and product/market fit. In his book *Running Lean* (O'Reilly), Ash Maurya defines problem/solution fit as “Do I have a problem worth solving?” Product/market fit is “Have I built something people want?”

Before you build a single prototype, you should consider three important questions:

- What is the problem I am trying to solve?
- Who are the people who have that problem?
- Why should they want to buy my product rather than the solutions that already exist in the market?

The purpose of these questions is to help you identify and segment your market, as well as to understand the underlying drivers that lead customers to purchase products in your space. The research you do as part of the idea-refinement process is extremely important. It will shape your early thinking on technology and pricing, and it might have an impact on fundraising strategies in the future. It will also help you begin to define your brand.

Researching Your Market: Trends and Competition

When it comes to gathering numbers, market research for a product idea can be broken down into an examination of *market size* and a forecast of *market trajectory*. The size is a function of sales revenue and users over a given time period (possibly also within a geographically constrained area).

For example, to determine a rough estimate for the market size of a given medical device, you would multiply the number of potential buyers in the market (hospitals, clinics, etc.) by the quantity of devices each would purchase in a year, and then multiply that number by the average price paid for a single device:

$$\begin{aligned} 5,723 \text{ hospitals in the US} \times 10 \text{ devices purchased per hospital} \times \\ \$3,000 \text{ cost per device} = \$171.69 \text{ million} \end{aligned}$$

This example counts hospitals, but it neglects to consider other buyers, such as clinics. However, it also assumes that every hospital in the US would buy 10 devices, which is unlikely.

MARKET SIZE

One common pitfall for new entrepreneurs is overestimating the number of potential buyers. If you are selling a device targeting hospitals, your potential addressable market is not the total number of hospitals in the world. It's the number of hospitals that fall into your potential sales channels (perhaps limited by geography or business structure) *and* are likely to actually buy your product. Some might be buying from your competition, or perhaps they don't want (or need) your device. In order to be more precise, marketers therefore use three distinct levels when referring to market size (nested as shown in [Figure 3-1](#)):

Total addressable market (TAM)

Sometimes called the *total available market*, TAM is an estimate of the maximum potential revenue opportunity for a given product or service. Assuming no competition and no distribution challenges, this is everyone you could possibly sell to in an ideal world. It's important to clarify the geographic scope of TAM; some people assume it's global, while others identify a particular region.

Serviceable available market (SAM)

A subset of the total addressable market, the term *serviceable* identifies customers whose needs are served by a specific product offering. SAM market sizing accounts for the fact that a given market has competition and that companies are limited by distribution channels.

Serviceable obtainable market (SOM)

SOM is the realistically obtainable market, limited by factors such as competition, cost, outreach required, distribution channels, and so on. These are the customers you have a realistic chance at closing.

In our hospital example, the TAM might be all of the hospitals in the world. SAM would impose some limitations: the hospitals must be located within the US, must have more than 20 rooms on the cardiac floor, or must be running a particular operating system. SOM would further limit the market by imposing likelihood constraints: if 20 percent of hospitals are in a long-term contract with a competitor, they are likely not obtainable. When considering how big you can potentially grow a company, the most relevant estimate is almost always the SOM.

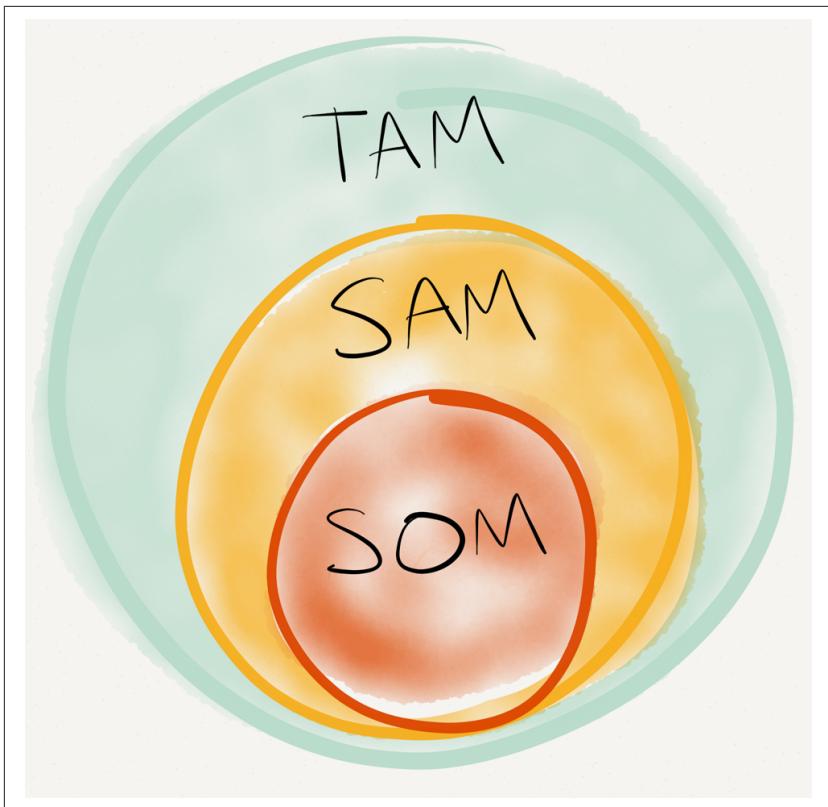


FIGURE 3-1. TAM/SAM/SOM market levels

MARKET TRAJECTORY

Market-size calculations give you a snapshot of overall market potential at a given moment in time. The market *trajectory* refers to whether a given market is expanding or contracting. It's about trends. A market can grow or shrink as a function of many different factors. In the previous example, perhaps those 5,723 hospitals are facing budget cuts and 5 percent of them will disappear in the next year (this assumption is totally fictional). If that year-over-year (YOY) trend continues, perhaps selling to hospitals isn't a great long-term play, and it's time to consider selling to clinics instead.

For consumer products, demographic changes are an important factor in predicting market trajectory. One commonly cited example is the number of senior citizens (age 65 or older) in the US, which is **rapidly increasing**. There were 40 million seniors in the US in 2010 (13 percent

of the population), but projections indicate that this number will grow to 72 million (20 percent of the US population) by 2030. This bit of information doesn't tell you anything about the purchasing habits of this demographic, but since the population is growing, it is reasonable to expect demand for products serving it (including health-related devices, home-assistance tools, entertainment platforms, etc.) to grow as well.

At other times, the number of potential users may remain constant, but shifts in industry business practices might lead to market expansion or contraction by way of changing purchasing habits. For example, one of the reasons that BlackBerry's market share declined substantially is that companies began to allow employees to use their own mobile devices at work.

Gathering data on numbers and trends can be somewhat challenging. Google searches surface news articles or blog posts that mention market size, but those posts are often pulling their data from market research firms' white papers. The white papers themselves are rich sources of information, but they can cost hundreds to thousands of dollars. Occasionally, you can gain access by signing up for a trial. Quora is a good place to go to see if others have posted relevant data, or to ask a question of an industry expert yourself. And Steve Blank, one of the creators of the Lean Startup, maintains a [market research section on his blog](#) that links to open data sets and helpful market-sizing resources.

It's less important to have exact numbers than it is to have logical justifications for believing that a market you're looking to enter can support your potential company. Running analyses based on several different scenarios (called a *sensitivity analysis*) can help you evaluate the degree to which a specific assumption weighs on a given outcome. When doing back-of-the-envelope estimates of market size, run the numbers based on best case, worst case, and expected outcome.

MARKET ANALYSIS

The overall dollar value of the market, the number of potential customers, and the trajectory are all important variables, but market research is about more than just quantitative facts and statistics. We started this book with a look at the factors that have combined to drive growth in the hardware startup "industry" (decreasing cost of components, better and faster prototyping technology, etc.). The goal of such research is to understand the interplay between forces shaping your market. Studying the trends

underlying a market will help you understand your customer, develop effective brand positioning, and, eventually, communicate the potential of your idea to an investor.

Venture capitalist and Hunch cofounder Chris Dixon calls this type of market sizing analysis “[using narratives, not numbers](#).¹” To understand your market in narrative terms, consider economic, social, political, and technological factors driving its growth. For example, [according to industry analysts](#), more data will be generated by machines than people next year. The factors driving this phenomenon include advances in analytics tools for processing big data, cloud computing (no need to buy machines to dedicate to analysis), and ubiquitous connectivity. Combined, these trends indicate that demand for enterprise Internet of Things hardware is likely to increase.

Once you have a handle on market size and trends shaping your sector, it’s time to look at the specific companies and brands that operate within it. One of the most important things to determine is how crowded your market is. More-established markets typically have more existing players, including some big brands.

Consider smart watches. The first watches appeared in the market approximately 10 years ago and were primarily for receiving time-sensitive information (weather, stock quotes, etc). As the technology developed, fitness-tracking features were added, which increased the appeal to athletes. Over time, these devices have added features—GPS, ability to receive text messages and email, heart rate monitoring, etc—and become increasingly useful to a mainstream audience. There are currently dozens of watches on Best Buy’s Smart Watch page (and there are undoubtedly more that Best Buy doesn’t carry). Most are from large companies, including Samsung and Sony. But there are also offerings from startups such as Pebble.

There isn’t a specific number of companies that separates a “crowded market” from one that’s still developing. What matters is the combination of how many companies are in the market, how strong their brands are, and how much money is being spent in the space. If you’re going to compete in a market sector with many incumbents, knowing the players involved will help you identify and prioritize your differentiators.

DIFFERENTIATORS

Differentiators are what distinguish you from your competition. They are the answer to the question posed earlier: “why would a customer buy my product over my competitor’s offering?” Particularly in a more mature market, some of the products you’re competing with belong to companies with millions of dollars to spend on advertising and physical showrooms already in place. Startups can compete with incumbent giants, but it’s critical that you determine in advance if what you’d like to build is different enough to claim meaningful market share. If you’re producing an activity-tracking product to compete with Jawbone Up, for example, will your product compete on price (by being less expensive)? Will it offer more features? Perhaps it will be more accurate or have a more stylish design?

The most basic way to get a handle on your competition is to identify which products exist and make a *feature comparison matrix* (see [Figure 3-2](#)); this mimics the process that consumers go through when they buy devices (particularly if they’re shopping online). A good way to start is to do extensive online research on as many product-related keywords or phrases as you can think of. In addition to unearthing competitive products, it will give you a preliminary sense of how the products are marketed, what sites (and physical stores) are selling them, and what publications or blogs are reviewing them. Once you have compiled a list of products, go looking for reviews (Amazon.com can be a particularly useful site to check). Read all of the reviews, and make a note of the features or usability factors that customers are praising or complaining about. This is an excellent source of unvarnished feedback.

Try not to let your research happen entirely online. You, and your competitors, are building physical products. A feature matrix can tell you only so much. It can’t convey how pleasant the user experience is, or if the components have a high-quality feel. Get out there and touch the competition’s offerings, to the greatest extent possible.

The diagram shows a hand-drawn feature comparison matrix. It consists of a grid where rows represent different features and columns represent two entities: 'THEM' and 'US'. The features listed on the left are: WEARABLE, MILITARY GRADE SECURITY, BLUETOOTH LE, WEB SCALE, CONNECTED, and JONY IVE. The 'THEM' column has four green checkmarks under WEARABLE, MILITARY GRADE SECURITY, BLUETOOTH LE, and CONNECTED. The 'US' column has five green checkmarks under WEARABLE, MILITARY GRADE SECURITY, BLUETOOTH LE, WEB SCALE, and CONNECTED. There is also a handwritten checkmark next to 'JONY IVE' under the 'US' column. The entire grid is enclosed in a light blue border.

	THEM	THEM	THEM	THEM	US
WEARABLE	✓	✓	✓	✓	✓
MILITARY GRADE SECURITY			✓		✓
BLUETOOTH LE		✓	✓	✓	✓
WEB SCALE	✓				✓
CONNECTED		✓	✓	✓	✓
JONY IVE					✓

FIGURE 3-2. A feature comparison matrix

Differentiators aren't limited to cost, design, and features. You can also appeal to convenience, quality, or specifically targeted use cases. You can offer better customer service or a more intimate or positive customer experience. The important thing is to have a solid understanding of what already exists and why people are buying it. This will help you identify gaps in the market—unmet needs that you can set out to fulfill. As you build your brand, this early knowledge of your differentiators will help you to position yourself effectively.

If you're not competing in an established market, you have a different set of problems to consider. First and foremost: does anyone really want your widget? If you truly have no competition, is it because no one really cares about the "problem" you're trying to solve? Creating technology in search of a problem might mean that the timing isn't right for your offering. You will not only have to explain your product to an uneducated audience, but you'll also have to convince them that they should pay you money for a solution to a problem they didn't know they had.

On the flip side, however, you might truly be onto something big and new. Lots of successful companies were founded to meet the needs of what initially seemed like a niche market. Jawbone, for example, started as a company that built noise-canceling headsets for US soldiers. The

thought that the technology might appeal more broadly to consumers came several years after initial product development. The “connected home” space is another relatively recent transition from niche hobbyist community into major consumer market. If your product is built upon a real technological breakthrough, there simply might not be a market out there yet.

Chapter 10 goes deeper into how to leverage your differentiators to build a distinct brand, as well as marketing within both crowded and non-established markets. For now, at the preprototype phase, you should be looking at the data you uncover with a critical eye and with the goal of deciding whether the market you’re considering entering is big enough for the type of company you’re envisioning building.

Segmenting Your Market

Market segmentation is the process that most marketers and brand developers use to identify groups that are most likely to receive a new product positively. Segmentation involves dividing a broad potential market into distinct subsets of people who share common characteristics or needs. The customers within those subsets will likely share a similar response to particular media channels or advertising approaches. Once the brand has identified relevant segment attributes, it can design a distinct marketing mix most likely to reach them.

The goal of segmentation in the preprototype phase is to help you discover and understand who you’re building for, so that you can get both your product features and brand positioning off on the right foot from the very beginning. You can’t build an MVP without knowing whom you’re building for.

Segmentation helps you identify and focus your energy on the customers who are most likely to buy from you. It’s a way to identify potential early adopters as well as customers to reach out to later in your company’s lifetime. An ideal target segment is distinct enough to be measurable and also large. It should be stable (meaning it will be around and relatively unchanged for a while) or growing, and it should have enough purchasing power to enable you to turn a profit.

CUSTOMER AQUISITION COST (CAC) AND LIFETIME VALUE (LTV)

As discussed in “[Market Size](#)” on page 37, a meaningful target segment must be *accessible*, which means that you can reach out and market your

product to that audience. Software startups, particularly those practicing the Lean Startup methodology, typically keep track of two metrics related to customer acquisition from the very start. The first is *customer acquisition cost* (CAC). This is the amount of money you spend to get a customer to buy your product or try your service. It includes money spent on market research, advertising, promotions (“\$10 off your first order”), and sales (including the salaries of your sales force).

The second is *lifetime value* (LTV), which is the amount of money you will theoretically make from a given customer over the duration of his relationship with your company. Chapter 10 spends a lot more time discussing CAC and LTV in the context of distribution channels, but even in the early, preprototype days, it’s important to develop a sense of what it might cost to reach your customers. If they don’t pay attention to traditionally inexpensive marketing channels, or if you can’t reach them without extensive effort or cost (in terms of time or money), they might not truly be a viable market segment for your product, particularly when you’re just starting out.

DEMOGRAPHICS AND PSYCHOGRAPHICS

Markets can be segmented according to many different factors. Two of the most common are *user characteristics* and *user behaviors*. Segmenting a market on the basis of customer characteristics involves two types of customer profiling:

Demographics

Demographics are quantifiable statistics that describe a particular population. A marketer’s basic demographic profile might include age, race or ethnicity, and gender. Other demographic data includes marital status; highest education level completed; socioeconomic factors (household income, social class); occupation; generational cohort (e.g., Baby Boomer, Generation X); and number of children. Sometimes, demographic profiling incorporates geography; zip codes are commonly used to segment regionally.

Psychographics

Psychographics classify individuals by interests, activities, and opinions (often referred to by marketers as *IAO variables*). These factors can include personality types, attitudes, hobbies, or lifestyle. Think about stereotypical high school cliques. When you hear “jock,” “nerd,” or “punk,” you can probably envision a member of that group

and have a sense of that person's likelihood of buying a particular article of clothing or album.

Marketers often use a combination of psychographics and geographically bounded demographics to fine-tune their outreach strategies. **PRIZM**, a segmentation tool developed by consumer information company **Nielsen**, sorts the population of the US into 66 personas ("Money and Brains," "Bohemian Mix," "Middleburg Managers") related to demographic and psychographic traits. Searching by zip code reveals the breakdown of various personas in a given area. While tools such as PRIZM are geared toward big brands focused on highly specific targeting, looking over the personas can help new entrepreneurs develop a sense of the factors that experienced marketers consider in their own segmentation studies.

BEHAVIORAL SEGMENTATION

Behavioral segmentation is another framework for identifying potential customers. If you're working within a crowded space (say, fitness trackers) and have chosen to compete by making a product with better battery life or greater ease of use, your most relevant market segment is likely not identifiable simply by gender or household income, but by technological sophistication. You might want to target frequent buyers, bulk buyers, or deal hunters. You might want to approach benefit or behavioral segmentation through exercises such as *persona building* around a given usage scenario: envision the most likely use cases for the product you want to produce, and then construct a persona that has the type of needs the use case fulfills.

A subset of behavioral segmentation is segmenting by buyer motivation. This involves understanding the type of benefit the user is seeking from the product. An individual who is considering buying a sweater, for example, might prioritize warmth, comfort, durability, price, or style. One or two primary motivators drive most purchasing decisions. Understanding the ones most common to your sector will help you strategically differentiate.

Within the B2B world, identifying your target customers involves different types of segmentation, but the concept remains the same. When identifying potential client companies, you might want to think about grouping customers by industry, standard industrial classification (SIC) category, size, market cap, or geography. On an individual level, you'll

want to consider the needs and motivations of both the person who makes the purchasing decisions and the likely end user.

Usually, the appeal to the purchaser is based on economics, and the needs of the end users are technological or functional. It's possible to evaluate B2B customers using behavioral analyses as well. For example, some companies will buy at particular times of the year.

[Chapter 4](#) discusses branding in much more detail, and [Chapter 10](#) returns to marketing issues. For now, the takeaway is to understand the importance of thinking about your customer before prototyping, so that you can build smarter. If you'd like to learn more about market research, segmentation, and other aspects of brand-development marketing, [MarketingProfs](#) is an excellent source of information and tutorials.

Customer Development

So now you have a sense of how to segment your market and identify potential customer affinity groups. However, when building a company, you must do more than think theoretical thoughts about who your customers are, particularly if you're working in a crowded space. You need to get out there and talk to them.

This is one of the core tenets of Lean Startup that's as applicable to hardware startups as it is to software. You want to be doing customer interviews before you have any kind of functional prototype. You might not be able to give these potential customers access to a series of iterative alpha releases for them to play with, but you can show them designs or models and discuss potential features. Ideally, you can map each feature in your MVP back to a clearly articulated customer need. (See "[Lumo BodyTech: A Case Study](#)" on page 47, for an example of this process in action)

Hardware product development mistakes are particularly costly, in terms of both time and money. The goal of customer-driven development is to incorporate user feedback into the product development cycle in order to avoid building something that doesn't meet the needs of potential buyers. A good place to start the process is to reach out to individuals in several of the market segments you're considering and sit down with them to learn about their pain points. That will help you identify the real needs of your prospective customers—emotional, cognitive, and physical—and to discover how they're currently meeting those needs.

Here are some common questions for customer discovery interviews:

- Do you have Problem X?
- How much does Problem X cost you (in terms of time and money)?
- How are you currently solving Problem X?
- What do you like best about this existing solution to Problem X?
What do you like least?
- What is the perfect solution to Problem X?
- Would My New Product solve Problem X?
- Why?

The last question—“Why?”—can turn a conversation from a surface-level survey into a discussion that unearths deeper needs, issues, and motivations.

It’s important to phrase the questions you ask as neutrally as possible. You don’t want to allow biased or leading questions to prompt your interviewees to respond in a certain way. It can also be difficult for entrepreneurs to really listen, particularly if the interview turns out to challenge their assumptions about a particular market or problem. Try to keep an open mind throughout.

For both B2C and B2B products, it’s often ideal to sit back and observe as your target customers use whatever their current solution is to the problem you’re trying to solve. You might learn more by watching their actual use case (and possibly hearing them narrate their issues as they go) than by asking them to articulate their needs. Your goal is to gain insights, even if they disprove your hypothesis.

Lumo BodyTech: A Case Study

Monisha Perkash is the CEO and cofounder of wearables company Lumo Body-Tech. Its products, the Lumo Lift and Lumo Back, use sensors and software to help wearers monitor their posture and be more active. Here, Monisha details Lumo’s approach to gathering early customer feedback as part of an iterative prototyping process.

“My cofounders and I came together without knowing what company we wanted to start,” Monisha says. They were motivated by the desire to solve an important problem and make a positive impact in the world. The team spent six months exploring ideas, occasionally creating low-resolution prototypes for designs that were particularly appealing.

Monisha and her cofounders evaluated ideas based on three criteria: feasibility, viability, and desirability. Feasibility was an investigation into technology. Did the technology necessary to build the product exist, or was it almost there? Viability pertained to the likelihood that a product could become a self-sustaining business. Desirability focused on the needs of a theoretical customer. Would people want the device? Did it solve a pain point that customers would be willing to spend money or time on?

During this exploratory period, cofounder Andrew Chang started taking classes to help with his back pain. He found the experience life-changing and began to think about ways to incorporate technology into improving posture. The team had noted the increasing prevalence of sensors in their daily lives and were intrigued by the idea of helping people improve their health via a wearable sensor device.

The Lumo team began their process for evaluating the feasibility, viability, and desirability of the posture-device idea. They came up with the idea of a sensor that, when placed on the wearer's lower back, would help promote proper alignment. Using a post to Monisha's alma mater's alumni mailing list, the team recruited test subjects for early feedback. They made sure to select a diverse mix of genders and ages.

When gathering user feedback, the team avoided yes-or-no questions. They kept all questions broad and open-ended. "Tell me about how you're managing your back pain today." "What solutions are you currently using?" "How are they working out for you?" "What would you change about this current solution?" Above all, Monisha emphasizes the importance of asking *why*. She says, "You really want to discover the emotional need that person has around that issue."

The team continually refined their idea based on what they were learning about the customer pain point. Their lowest-resolution prototypes were made of paper, which they used to solicit feedback from 20 people. Several individuals suggested incorporating the sensor into an adhesive, similar to a nicotine or birth-control patch. The Lumo team incorporated that feedback into their next prototype, putting the sensor onto a sticker. It was a failure. "People conceptually thought they would want a sticker on their back," says Monisha. "In practice, they really didn't. It got icky."

The sticker design for the Lumo Back was gooey, collected lint, and was unpleasant for users with body hair. But most important, the team realized that it had a clinical feel. Since they wanted a more polished consumer experience, they recognized the need to rework the design. "We didn't want a 'clini-

cal" product," Monisha says. "We felt that a strong consumer product was the best way to attract an audience, get feedback, iterate, and eventually put out new products."

After determining that the patch wouldn't work, they switched to a clip-on device that attached to the waistband of a garment worn by just about everyone: underwear. The closer the sensor was to the body, the more accurately it would read the tilt and angle of the wearer's back. However, feedback from the test group was clear: it was not a good user experience. Some commented that it was socially awkward. Others expressed concerns that it would fall into the toilet.

Eventually, the Lumo team decided to try a design inspired by a heart rate monitor. They bought heart rate monitors and wore them around their own waists for a week. After deciding that the monitor bands were comfortable, they once again reached out to their testers for feedback. Finding it positive, they decided to launch with the band form factor.

Despite conventional wisdom, Monisha believes that it is possible to do lean iteration as a hardware startup. "We went through 30 different design iterations and low-resolution prototypes before bringing this one to market," she says. She emphasizes the importance of being "scrappy and resourceful."

In addition to paper and other craft supplies, the team used readily available, inexpensive items to test designs. At one point, they went to The Container Store and bought tiny containers approximately the same size as the case that would hold their sensor. They attached the containers to elastic bands and wore them.

Once tester feedback was positive on both design and function, Monisha and her cofounders went to a prototyping facility and built 50 functional prototypes. Soon after, they launched a successful Kickstarter campaign for the LUMOback (now the Lumo Back) v. 1.

The Lumo BodyTech founders worked through dozens of ideas before finding one that both resonated with their desire to build something meaningful and filled a real need in the market. And after finding the right idea, they spent an extended amount of time developing the right form factor and feature set. Lumo has continued to listen to its target market as it has expanded its product line. The new Lumo Lift incorporates both features (upper-body posture feedback) and design (a more fashionable, customizable device) gleaned from Lumo Back customer feedback.

While it is undoubtedly more difficult to apply Lean Startup principles to a hardware startup, with the right scrappy, resourceful approach, it can be done.

First-time entrepreneurs often wonder how to reach people in segments within which they don't have extensive contacts. An ideal way to do that is to use your existing network. It's worth building a LinkedIn presence to see who your second-degree connections are. A warm introduction—having a mutual colleague or acquaintance introduce you to the person you want to approach—is most likely to convince people to sit down with you. Beyond your friends and family, consider reaching out through an alumni network. Online, sites like LinkedIn, Facebook, and Meetup bring groups of like-minded people together. Blogger networks might also be helpful. Craigslist, Reddit, and Mechanical Turk users are often willing to take a survey (though typically for some type of compensation). Offline, reach out to local clubs or professional associations.

You can also leverage online marketing tools for product hypothesis validation on a larger scale: you can test and validate product features and price elasticity without building a single prototype. Make a few specialized landing pages, each offering your product, but highlighting a different feature set, design, or price point. That way you can identify the market(s) most worth pursuing in the early stage of your company, when you likely don't have extensive dedicated resources for marketing or outreach.

Buy Google AdWords to drive traffic to each landing page, targeting the customer segments you've identified as having the potential to be early beachhead markets. Using Google Analytics (or another analytics dashboard), track which keywords and sources bring people to your page. Observe the number of people who land on the page versus the number who provide you with an email address or other indication of interest in preordering. Services such as LaunchRock and Beta List, which enable users to sign up and “share” your company among their networks (in exchange for early admission to a beta), can also help you gauge interest and get the word out.

You should consider reaching out to people who have signed up with a more thorough survey about what interested them in your product. SurveyMonkey is an excellent tool for such a project. At a minimum, you are beginning to gather a list of interested customers to contact when announcing a crowdfunding campaign or taking preorders in the future.

If you're building a product with integrated software, consider using the software to validate your assumptions about the functions your users care about. Produce mockups, or even a rough alpha version of the software, and see what resonates.

To the greatest extent possible, you want to validate your assumptions about market size, desired product features, and price points well in advance of building your hardware MVP. Once you've started down the road to manufacturing, feature changes become increasingly difficult. Your goal is to be the best at your core use case from day one. You can incorporate the nice-to-have features in a subsequent release.

For more techniques, consider reading some of the many excellent resources that focus specifically on customer discovery and product development. Steve Blank's book *The Four Steps to the Epiphany* (K&S Ranch) is one of the classics. His [blog](#) is also rich with [case studies](#) and [worksheets](#) that can help you conduct efficient interviews. *Lean Analytics* (O'Reilly), by Alistair Croll and Benjamin Yoskovitz, will help you use data to find your customers and develop the right product for their needs.

Branding

AS YOU GO THROUGH THE CUSTOMER DEVELOPMENT AND MARKET research processes, you are collecting valuable information that will help you formulate a brand identity. Your brand is the personification of your company, and developing a strong brand is absolutely critical to your success. It builds a foundation for a long-term relationship with customers.

Branding can feel like a rather elusive concept, as the value-add of a strong brand is difficult to quantify and measure. Startups often undervalue the importance of building a brand, particularly if the founding team is strong on tech but has no marketing or sales experience (as is often the case). In any early-stage company, there is much to do and precious few resources to do it with. There is never enough time, money, or people, so most founders put all of their resources toward nailing the product. Branding, marketing, sales strategy...those are problems to push off until a later date.

Don't make this mistake.

The problem with this approach for a hardware company is that your product will be competing for shelf space (digital or physical) with established players. When you are on a physical shelf, there is no website with help text or comparison charts that can explain the virtues of your product. Your package messaging must be appealing enough to convince a busy shopper to put your widget into her cart. If your product is on the shelf next to one of similar price manufactured by a competitor who has better name recognition, your product is at a disadvantage. People have many choices, but little time. They're going to grab the product they've heard of, or the brand they are loyal to.

While startups often neglect brand building, Fortune 500 companies prioritize it. They treat branding as a critical facet of their business strategy. A study by Interbrand and JP Morgan determined that, on average,

brand accounts for close to a third of shareholder value. Though valuing intangibles is notoriously difficult, the study says:

The brand is a special intangible that in many businesses is the most important asset. This is because of the economic impact that brands have. They influence the choices of customers, employees, investors and government authorities. In a world of abundant choices, such influence is crucial for commercial success.

In 2013, Apple was the most valuable brand name in the world, **worth an estimated \$98.3 billion**. Google was second on the list, at \$93.3 billion, and Coca-Cola was third, with \$79.2 billion.

Brand equity is the monetary value that comes from having a recognizable brand. Marketing experts have found that positive name association enables a company to justify a price premium over similar goods. Think of the product options on the shelf of your drugstore: is Clorox bleach better than store-brand bleach? Is Advil better than generic ibuprofen? In both cases, the generic is exactly the same product, but it costs more. And yet, people still buy it. That price premium is Clorox's and Advil's brand equity.

In the world of devices, your product is not exactly the same as your competitor's product. At a minimum, you likely have a few different features and a different design. But when customers are deciding what to buy, they are purchasing a product to meet a need or fulfill a want. If either your device or your competitor's device will satisfy their objectives for approximately the same price, brand becomes a powerful differentiator.

Emotional responses to products matter. According to Alina Wheeler's seminal brand-strategy guide *Designing Brand Identity* (Wiley), brands serve three primary functions:

Navigation

A strong brand helps customers make a choice when presented with a wide array of options.

Reassurance

In a world with so many choices, a brand reassures customers that the product they've chosen is high quality and trustworthy.

Engagement

Brand visuals and communications make customers feel that the brand understands them. The result is that customers identify with the brand.

A recognizable brand can help a company increase (or defend) its market share by inspiring trust and enhancing the perception of quality. Having customers who identify with your brand engenders loyalty.

Brand loyalty is important in an industry in which product turnover is high. Within a few years, new technology renders many hardware products outdated. People upgrade consumer electronics (phones, music players, cameras, speakers) every few years. High-quality software products are developed to engender what's known as *lock-in*: over time, customers become accustomed to the feature set, learn advanced shortcuts, store their data, or create large libraries of files. They become loyal customers and will often pay to upgrade the software as new versions are released. They have invested time and energy in learning how to use it, and this makes them reluctant to switch to a new product. This phenomenon is particularly prevalent in enterprise software, where corporations want to ensure continuous availability of data and internal documents. They don't want to risk losing document integrity porting to a new product.

With most hardware products, this kind of lock-in is difficult to achieve. Unlike with software, where you can push an update that incorporates new technology (and suggest that your users buy it), hardware upgrades eventually require new physical components encased in new plastic. At the point of purchase, whether on the shelf or online, your customers will be confronted by alternatives. Strong branding generates loyalty and makes customers more likely to have you top-of-mind when they intend to purchase; even when they're *not* actively intending to purchase, you want your brand to be top-of-mind.

Besides loyalty, a strong brand gives you leverage when expanding your offering into a new category. This is a particularly important consideration for connected-device startups or for wearables companies that aspire to be platforms. According to Sean Murphy of product development consultancy Smart Design (see his discussion of branding and design in "[From Conception to Prototype with Smart Design: A Case Study](#)" on page 56), "There really aren't 'connected products'; there are just connected brands. You don't just experience the product; you experience an ecosystem."

From Conception to Prototype with Smart Design: A Case Study

Sean Murphy was previously the Director of Design Engineering at Smart Design, a design innovation consultancy with expertise in both digital and physical products. Its client roster includes powerhouse companies that produce both designed products (Oxo) and consumer electronics (Flip, Toshiba). Here, he tells us about the process Smart Design uses to take its clients from conception to prototype.

The Smart Design team began the process with a qualitative user research study. "We start with a hypothesis and a design instinct around a product, and we put that in front of who we think the target audience is," Sean says. Participants in the qualitative study often come through recruiters, to ensure an unbiased and independent set of opinions. There are typically 8 to 12 participants, representing a range of target customer personas. Occasionally, if a client has a specialty focus (e.g., for a product geared toward the deaf population), the client will provide the participants. The team will set up in a potential user's home and watch him go through the usage scenarios. The product is often in very raw form, sometimes just a paper prototype or illustration.

The emphasis in these early conversations is on identifying the important functional elements that the product should have, and how the product will fit into the user's daily life. "This builds a narrative for the design vision," Sean says. The team's goal is to assign a relative value to the different functional elements according to how important they are for solving the customer's problem. The resulting framework is the basis for the design. At this point, it's still flexible, but it's a reference for what users care about and why.

The design research team might present brand elements to the participants during the qualitative study, addressing how a product makes them feel or what it means to them. The team wants to understand what is important, and why. "We try to make it abstract, to allow them to pour their own narrative onto the product," Sean says. "You want to hear things like, 'This is like this other product that I had 10 years ago and loved for these reasons.'" The team might also ask the participants to rank competitive brands, or do some association exercises. This helps the client gain insights into tone and positioning.

The Smart Design team uses the information gleaned from the qualitative study to create one or more design directions for the product. If the client's schedule and budget allow for it, the Smart Design team will return to the qualitative study participants (and bring in some new ones) to show them several possible prototypes and solicit more feedback. The goal is to observe user

reactions. It's a learning and refinement process, geared toward guiding further development.

The team presents multiple versions of a product to ensure that the user doesn't think of a prototype as *the* product. "Perhaps you have a strong product ID, but you're taking refined prototypes to the field that are more about usability than ID," Sean says. "From the design perspective, you go to the field to learn and refine rather than validate." This second-round conversation can also help develop a greater understanding of brand perception.

At various points in the design process, the client might express a desire for a more rigorous quantitative study with a larger sample size. The quantitative analysis is often a web-based survey with questions such as, "On a scale of 1 to 10, how important are these three features?" and "Would you rather have feature X or feature Y?" According to Sean, "It's designed to be an A/B test for a physical product."

A quantitative study can give the team additional data to help them anchor design elements and reinforce what was learned from the qualitative interviews. "One of the big challenges for design is to make decisions not feel so subjective," Sean says. "There are always elements of subjectivity in a design process, but when you're trying to make a decision as to something that influences the cost, it's good to have a more rigorous rationale."

After the design principles are established, product development continues along the industrial design process, blending together features and interactions with distinct styling directions. In general, it takes one to three months to get to a design prototype, depending on the complexity. Wearables and products that are ergonomic can require multiple iterations and user studies. Often, a company has not yet engaged a contract manufacturer, so the design is subject to revision as the internals of the product change.

Many products have technology requirements that act as a limiting factor on the design, so it's important to work with a designer who understands the technological limitations up front. A contract manufacturer will do its best to work with the design files it's given, but designers without experience in a particular market might neglect to incorporate certain elements—say, holes for venting heat. The manufacturer will add in the necessary holes, possibly at the expense of aesthetics. The smaller the product, the greater the possibility that a design will be unable to accommodate the necessary internals. Wearables are particularly challenging.

Once a product gets to tooling, it's difficult and costly to make changes. To mitigate this type of problem, Smart Design has a technical team that

understands both frontend and backend needs. Sean says, “One of the advantages to working with someone who stays engaged all the way through the process is that the same designer is there when something changes, which almost certainly will happen.”

Working with a consultancy for the full design-to-production process can cost well into the six-figure range, which is often prohibitive for startups. Since the contract is typically priced by phase (in which each phase is tied to a deliverable), a startup might want to approach a firm with its qualitative and quantitative research already done. One of the value-adds of working with a firm that has technological, design, and branding experience all under the same roof is that simultaneous development of all three will help the startup ensure that no one aspect is treated as an afterthought.

Jawbone started out as company called Aliph; Jawbone was the name of its first wireless headset. It released several subsequent models of headsets over the years—Jawbone Prime, Jawbone Icon, Jawbone Era—before eventually dropping the name Aliph and rebranding as simply Jawbone. Under the successful Jawbone brand, the company expanded from headsets into portable speakers (Jawbone Jambox) and then a fitness device (Jawbone Up). The packaging for each of these devices reads: “ERA by Jawbone,” “UP by Jawbone,” etc.

Prioritizing brand recognition gives a company a leg up on a new launch, in terms of both awareness and perception of quality. Regardless of the distribution channels you pursue, you won’t sell many widgets if you’re an unknown quantity.

So how do you build a recognizable brand?

Your Mission

First and foremost, a brand must have a *mission*. Earlier in this chapter, we touched on the importance of identifying a problem that truly motivates you and resonates with others. Your mission is what your company is doing, why, and for whom. You should be able to articulate this succinctly in the form of an *elevator pitch* or *mission statement* (sometimes called a *mantra*). Your brand mantra is a statement of why you exist. Consider the following examples:

Apple

“Committed to bringing the best personal computing experience to students, educators, creative professionals, and consumers around the world through its innovative hardware, software, and Internet offerings.”

Microsoft

“To enable people and businesses throughout the world to realize their full potential.”

Nike

“To bring inspiration and innovation to every athlete* in the world. (*if you have a body, you are an athlete)”

Google

“To organize the world’s information and make it universally accessible and useful.”

These sentences distill each company’s intent and purpose into a single statement that represents the core of the brand’s identity. All other facets of branding—personality, assets, and experience—are outgrowths of this statement of purpose.

The company’s products also reflect this purpose. Consider Apple’s and Microsoft’s mission statements in the context of their product lines. Apple builds beautiful products and prioritizes a seamless user experience. Microsoft builds exemplary productivity tools used in enterprise companies all over the world.

Knowing your mission helps your company in both an internal and a public-facing capacity. Internally, it serves as a guide for employees to know what they stand for and what they’re working toward. It provides a company with a framework to evaluate strategies and products: to what extent does a specific action or product release advance your mission and align with your core values?

Sean Murphy (see his discussion of branding and design in “[From Conception to Prototype with Smart Design: A Case Study](#)” on page 56) points out:

There’s a tremendous pressure to cut corners when you’re a startup. Having strong brand principles gives you something to refer back to during development. As the product evolves, you’re going to make decisions with respect to what you understand your brand to be. The software, the service

components...it will all be viewed in the context of answering the question “Who are we?”

Publicly, your mission statement is a communication tool that frames your brand in the minds of consumers. You are telling people what you stand for and why you exist. In his book *Grow* (Crown Business), marketing expert and former Procter & Gamble global marketing officer Jim Stengel advocates that a company should have a *brand ideal*, a “higher-order benefit it brings to the world” that satisfies a fundamental human value that improves people’s lives. In his own words, people’s lives can be improved by engaging five fundamental human values:

Eliciting Joy

Activating experiences of happiness, wonder, and limitless possibility.

Enabling Connection

Enhancing the ability of people to connect with each other and the world in meaningful ways.

Inspiring Exploration

Helping people explore new horizons and new experiences.

Evoking Pride

Giving people increased confidence, strength, security, and vitality.

Impacting Society

Affecting society broadly, including by challenging the status quo and redefining categories.

These ideals elicit emotional responses. Emotional connections lead to deeper relationships with customers. Brand communication skills expert Carmine Gallo has **interviewed numerous CEOs about what their brands stand for**. He recalls Tony Hsieh, founder of Zappos, replying with one word: “happiness.” Richard Branson, CEO of Virgin Group: “fun.”

New founders might be skeptical of the real impact of values and ideals on important metrics, such as sales numbers. While a direct link is difficult to quantify, Stengel cites a study that examined the connection between financial performance and customer engagement and loyalty over a 10-year period. The researchers looked at 50,000 brands and found that in the minds of consumers, the 50 top high-growth brands were

linked with an ideal. These 50 companies (called the “Stengel 50”) grew three times as fast as their competitors over the 10-year period. One example of such a company is Pampers:

Pampers’ brand ideal, for example, its true reason for being, is not selling the most disposable diapers in the world. Pampers exists to help mothers care for their babies’ and toddlers’ healthy, happy development. In looking beyond transactions, an ideal opens up endless possibilities, including endless possibilities for growth and profit.

You can’t be all things to all people. A well-defined set of values and authentic messaging will help you attract customers who share your values and vision, and care about what you are trying to do for the world. As a startup, it can also help you find investors and potential employees who are aligned with your mission.

Brand Identity and Personality

Putting in the effort to arrive at a deep understanding of your brand’s values and mission will help you define and project a coherent brand identity. As defined in branding expert and author of *The Brand Gap* (New Riders) Marty Neumeier’s **The Dictionary of Brand** (an excellent resource for brand builders), brand identity is “the outward expression of a brand, including its trademark, name, communications, and visual appearance.”

Brand identity is the sum of all of the parts. Identity is deliberately constructed by the company, with the goal of ensuring that customers both recognize the brand as an entity and can articulate how it differs from the competition. *Brand image* is the consumer’s perception of this identity: how the market views your brand. You want the market view to align with the impression you are trying to create.

As Neumeier **puts it**, “[A brand] is not what **you** say it is, it’s what **they** say it is.” To have an impact on your brand image, you must actively manage your brand identity.

Professional brand strategists use a variety of methods and frameworks to define and shape identity. In *Designing Brand Identity*, Alina Wheeler breaks down the process into five steps:

Conducting Research

Fully investigate the existing perception of the brand, both in the market and in the minds of *stakeholders* (constituents who have a ves-

ted interest in a company, such as employees, investors, customers, partners, etc.).

Clarifying Strategy

Define goals, identify key messages, and determine appropriate strategies for naming, branding, and positioning.

Designing Identity

Define a unifying “big idea” and develop a visual strategy.

Creating Touchpoints

Produce visual elements, refine the look and feel, and protect trademarks.

Managing Assets

Develop and implement a launch strategy to unveil brand elements, define brand standards, and establish guidelines to ensure consistency.

This process might seem like an extensive undertaking, particularly for a resource-constrained startup, and it can be a long and time-consuming process. But even in the days before a startup has stakeholders aside from the team, it should be thinking about brand identity. Jinal Shah of marketing communications firm J. Walter Thompson (JWT) discusses ways that startups can streamline this process in **“Brand Building for Startups: A Case Study”** on page 62.

Brand Building for Startups: A Case Study

Jinal Shah, Global Digital Strategy Director at J. Walter Thompson, has 10 years of experience as a brand and digital planner. Throughout her career she has worked with both large brands and startups. In this case study, she shares the highlights of the branding process and how startups can do this most effectively with limited resources.

Typically a company writes a *brief* before engaging a branding agency. The brief captures the objective of the assignment, the desired outcome, any competitive insights, and mandatories that will help the branding process. “This is a foundation document. It must also convey key information about your company. The story of how it was started, etc.”

The agency will then begin a stakeholder audit and interview at length the founders, the employees, and often also the customers/users (both the current customers and those the company aspires to attract). The goal of this

audit is to get a sense of the values shared across all groups—because they are the basis for the underlying values of the brand. This audit will also uncover any discrepancies in the brief and other weaknesses and consistency issues—which all contribute toward building a strong brand and hence are necessary to identify and address early on.

Jinal says, “Consistency is absolutely key when articulating and designing your brand. It is important that all the stakeholders are aligned.”

One of the things this initial research often produces is a clear understanding of values: a document that says “who we are; who we are not.” A company might say something along the lines of “we are global, but we are not corporate” to indicate its size and outlook but also refer to its informal and approachable personality.

“You’ll start to see patterns emerging...words and phrases that appear repeatedly,” Jinal adds. Those attributes are the foundation of any company’s corporate culture. Once the culture is identified and defined, the brand’s personality, assets, and messaging can be designed as manifestations of those ideals.

Once the brand values are defined, the next step is to address the brand positioning. “Brand positioning is about identifying the space you want your brand to occupy in your audience’s minds,” Jinal says. “What do you exist in the world to do? You have to nail your answer to that. Everything cascades from that.”

At this point, JWT often engages in extensive competitive and landscape analysis to ensure that the positioning it defines for a client is unique, well differentiated, and future-proof.

Positioning is about the brand, not the product that the company offers. “Focusing positioning on the product commoditizes your brand and is short-sighted,” Jinal says. It will box you into a category, making it difficult to elevate and leverage brand recognition if you expand into a new market or pivot for the future. She continues, “The goal of brand building is to attach emotional value to the brand. When there is a competitor, a choice in the market, the emotional connection is what will make your customers pick you over anyone else.”

This stakeholder audit and research takes a few weeks and can cost from \$30,000 to \$50,000 with a reputable firm. Most early-stage startups don’t have the resources to pay for this formal branding process. “Startups have fewer resources but more agility,” Jinal says. “What takes a large company months, a startup can often accomplish in a few weeks.”

For starters, there are fewer stakeholders to interview. And in general, startups exist because founders have already identified a need (a “white space”) in the market that they are working to solve.

A startup with limited funds can work through an effective brand-building process without using an agency. To derive brand values and personality, the founding team should start with the kind of people they are. “Start with cultural attributes that are very true to you,” Jinal says.

Authenticity is important. In the early days, the founders (the visionaries) are the most effective mouthpiece for the brand, especially online. They will not be effective if they’re trying to be something they’re not.

“The thing to remember about brand building is that everything communicates—so once you know who you are and what your values are, infuse them through everything you do and produce,” says Jinal. Your brand values should dictate how you onboard new employees and handle customer complaints to the color of the paint on your walls and the brand of coffee in your office kitchen.

A community manager is a key hire in bringing your brand to life externally. The founders may define the brand, but the community manager will be the person who most consistently has the opportunity to convey it to users. If you don’t have a community manager or head of marketing yet, make sure someone on the team is an excellent communicator. That person should be responsible for infusing the brand’s personality into touchpoints until a dedicated hire or agency partnership is in place.

Once your brand is defined, you’ll need to build assets. For example, if you are a hardware startup, you may need packaging that shows off your product but also communicates your brand. When you are meeting with the packaging agency, bring packaging materials and examples of different types of packaging that resonate with you and reflect either your brand or brand values. According to Jinal, “If you’re engaging a creative person you want to inspire and challenge them, but also educate them about your brand and your preferences to get the best work out of them.”

Early brand building takes a lot of time and discipline. It should be a serious, process-driven endeavor. Startup founders put a lot of energy into product development and trying to attract customers. Identifying brand values and knowing who you are is equally important. Your ultimate goal is to sell your brand—the values, vision and emotional connection—not your product.

A fundamental component of brand identity is *brand personality*. Emotions are involved in the purchasing process, as the customer has a need or desire and is looking to fulfill it. Consumers buy products that fit the perception they have of themselves, or the way they wish to be perceived by others.

A successful brand has a clearly defined personality that appeals to or resonates with its target customers. In *The Dictionary of Brand*, Marty Neumeier defines brand personality as “the character of a brand as defined in anthropomorphic terms.” Brands can be kind, funny, masculine, elegant...the possibilities are endless.

Agencies use several common frameworks to help their clients identify a brand personality, some of which a research-constrained startup can carry out independently. One is an *archetype study*. Archetypes are a universal model for a personality, such as “the Joker” or “the Rebel.” Hardware startup Contour Cameras took this approach, which founder Marc Barros [described in a blog post about the process](#): “Defining a brand is like defining a person. No different from how you would describe a friend, brand attributes are the adjectives you choose to define the personality of your brand.”

Using the 12 archetypes defined in Margaret Mark and Carol Pearson’s book *The Hero and the Outlaw* (McGraw-Hill), the Contour team identified the persona that fit their desire to facilitate imaginative self-expression: the Creator. Using the Creator as an anchor, they focused their brand on creativity. They worked on producing a product that would be loved by Creator types: artists, innovators, and dreamers.

In psychological research, the [five-factor model](#) asserts that there are five basic dimensions of human personality (called “the Big Five personality traits”): openness, conscientiousness, extraversion, agreeableness, and neuroticism. In a similar vein, Stanford marketing professor Dr. Jennifer Aaker believes that brand personality can be broken down into [five core dimensions](#): sincerity, excitement, competence, sophistication, and ruggedness. Within each of these dimensions are facets and traits that increase the specificity of the description, as shown in [Figure 4-1](#). While some academics have criticized Aaker’s scale as biased toward American culture, these lists of traits are a solid jumping-off point for companies looking to define their brand personality.

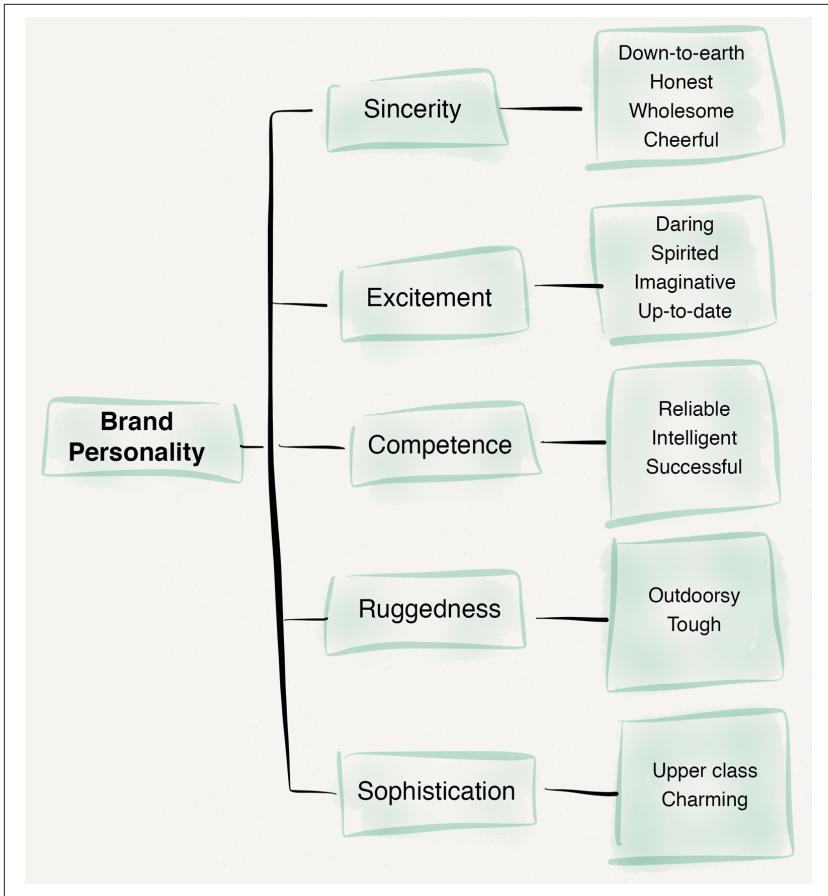


FIGURE 4-1. Aaker's brand dimensions

Another approach to the process involves listing adjectives that describe your target customer. Some branding agencies have their clients work through association exercises, such as “If you were a car, what kind of car would you be?” or “If you were an animal, what kind of animal would you be?” Or you could try personification: imagine your brand as a real person and visualize what she would look like and how she would act.

Products and messaging keep changing over time as a company evolves, but brand values and personality generally remain the same. Jinal Shah says:

You want to have a little bit of room to evolve and have fluidity in the market, but there is still a core set of values that must remain consistent. Think about you, the person. There are certain things that you would do or say, and certain things that you would not do or say. People who know you can probably distinguish between the two. That's how your personal brand gets built. It's no different for a company.

Brand Assets and Touchpoints

Brand personality is brought to life via *brand assets*. Assets include the brand name, logo, tagline, graphics, color palettes, and sounds...sometimes even scents and tastes.

Naming your company is incredibly important. A name is the most frequently used brand asset. Customers see it and hear it. They speak it when they tell their friends about you. Many blog posts have been written about naming software startups: common suggestions include keeping the name short, choosing something with an available domain (or, at worst, a unique modified domain with the name in the title, such as *GET-startup.com* or *startupHQ.com*) and social media handles, and selecting something that is easily pronounceable and searchable (don't remove too many vowels!). A name should be distinctive and memorable. It must also be legally available and not trademarked by anyone else.

One important difference between naming a hardware startup (or product) and a software startup is that the name is more likely to appear on packaging, and possibly on the device. Clarity and readability are critical. Can you tell from a glance at the name what the product does? The ability to extend a product line in the future is also something to consider. Apple has done this exceptionally well. The “iDevice” naming convention has taken it through decades of hardware products (iMac, iBook, iPod, iPhone, iPad), and links the hardware to the software (iTunes).

Some companies use their founder’s names. That way a corporate brand can benefit from being associated with a charismatic founder’s personal brand (Beats by Dre), but there is a risk of negative associations if the founder endures any personal scandal or hardship (Martha Stewart). Also, be wary of choosing a name that is a generic word. While many successful companies have such names (such as Square and Nest), it takes hard work to associate the word with your company in the minds of consumers. You’ll also spend quite a bit of money acquiring the domain.

Begin your naming process by deciding what you most want the name to evoke. You can use the work you did when identifying your values and personality. Choose several words or phrases that capture the brand essence you’re going for, and begin to brainstorm. There are many categories from which to pick a name:

- Emotions that you want your product to evoke
- Locations where people are likely to use it
- A distinctive physical characteristic of the product
- A metaphor that represents your user or your product
- A verb related to your product’s functionality

It’s helpful to work through this process with a group of people. Word association and building off of the creativity of others can make it a lot easier and more enjoyable.

Once you’ve come up with several names that you like (and checked them for potential trademark infringement), it’s time to test them. San Francisco naming consultancy Eat My Words has a series of criteria that it calls the **SMILE & SCRATCH test**.

The SMILE test checks to see if your name has the following important qualities:

- Suggestive — evokes a positive brand experience
- Meaningful — your customers “get it”
- Imagery — visually evocative to aid in memory
- Legs — lends itself to a theme for extended mileage
- Emotional — resonates with your audience

And the SCRATCH test helps you determine if it should be scrapped:

- Spelling-challenged — looks like a typo
- Copycat — similar to competitor’s name
- Restrictive — limits future growth
- Annoying — forced
- Tame — flat, uninspired
- Curse of knowledge — only insiders get it
- Hard-to-pronounce — not obvious, unapproachable

If your name passes these two tests, it’s time to consider testing it in the wild. Some entrepreneurs choose not to, instead just trusting their own judgment. Others solicit feedback solely from friends, family, or

their (early) community. Naming and branding experts advise field testing, because it's often difficult for insiders to recognize that their name has a "curse of knowledge" problem or is inscrutable to a general audience. They test names with focus groups. Common questions that naming experts ask include:

- What do you think this business does?
- Can you spell it? (Can you pronounce it?)
- Does this name remind you of any particular product?
- What do you think of when you read the name?

If you're bootstrapping this process and decide you want to get consumer feedback on your product name, online surveys are a less expensive and less time-consuming way to go. You can reach a wide audience for a minimal fee using a service such as [Mechanical Turk](#) or [Crowdflower](#) to find survey participants. Some founders try A/B testing names in [AdWords](#), driving traffic to landing pages.

Still, there's no substitute for in-person feedback whenever you can get it. Marc Barros, the founder of wearable-camera maker Contour, [describes its process](#) of using the "Bar Test": say your company name to someone in a noisy bar. See if they understand what you do. If they can't pronounce or spell the name, consider it a [failure](#). (For more lessons learned from Marc's experience with company naming and branding, see "[Naming Contour and Moment: A Case Study](#)" on page 69.)

Naming Contour and Moment: A Case Study

Marc Barros is the founder of Contour cameras, which made a wearable/mountable point-of-view video camera until it shut its doors in August 2013. He recently launched his new company, Moment, via a successful Kickstarter raise. He also organizes the Hardware Startup Workshop, a daylong series of talks by industry experts that helps founders learn best practices and avoid potential pitfalls. As a founder who has experienced both success and failure, Marc has a diverse perspective on the importance of early brand building for hardware startups. Here, Marc talks about the challenges the Contour team faced and how he's applying the lessons he learned toward building Moment.

At Contour, Marc says, "We got branding horribly wrong at the very start." Contour was the third name for the company. The first, chosen when the

founders were both in college, was 20/20. They decided they didn't like that, and switched to VholdR. "We were trying to come up with a new name that worked for the camera, the software, and this new social community we wanted to make around video," Marc says. Unfortunately, people couldn't spell it or pronounce it—not even members of the team. They didn't have the money to hire a naming firm, choosing instead to put their funds into product design.

The absence of social networks in the early days of Contour's existence meant that their marketing strategy relied heavily on in-person events. They targeted the action sports and lifestyle communities. "We used a lot of event strategy," Mark says. "We would go to mountain biking events, skiing events, snowboarding events. We had an RV driving around, and reps that would go with us to help canvass the area."

Contour also built a network of athlete influencers, giving them product and sponsoring them. At various points in the company's evolution, the product was sold under the 20/20 and VholdR names. The camera achieved visibility within the target market, but the multiple rebrands meant that there wasn't much continuity, which is critical for building up a brand identity in the minds of consumers.

The name changes resulted in lost time and lost market share. A full five years into the existence of the company, the team got serious about branding. They had managed to gain some traction (and earn some revenue) despite the setbacks, and they began to work with an agency to shape the Contour brand archetype and story.

Unfortunately, competitor GoPro hadn't made the same missteps. Founded at approximately the same time, and with a similar offering geared toward a similar customer, GoPro continued to gain market share and move ahead of its smaller rival. After shutting down Contour, Marc wrote an [excellent post-mortem on his blog](#) detailing the differences between GoPro's branding strategy and Contour's. In the post, he describes learning the lesson of "brand first, distribution second." Focusing on retail sapped Contour's resources, leaving little available to drive consumer demand. GoPro focused on emotionally connecting with customers, creating an aspirational brand identity through the use of thrilling action videos shot with the product. GoPro built a movement.

"Contour wasn't the best in the world at one thing," Marc reflects. "We were pretty good at product, we were okay at brand, okay at distribution, but we weren't unbelievable at one thing." The lack of a crystal-clear value proposition, combined with nebulous positioning, made competing with its well-branded rival an insurmountable challenge.

Moving on to Moment, Marc has applied the lessons learned from the Contour experience. This time around, “We started by understanding who we are and why we’re doing this,” Marc says. From the beginning, the team has focused on identifying their core values, making those values the foundation of the company they’re building. They have worked at understanding the companies that have come before. According to Marc, “This brand is anchored in the history of lenses.” The design elements, the name, and the concept are all part of a cohesive vision: segments of time. Moments.

“We all took photos, put them on an inspiration wall,” Marc says. “We thought about what the photos made us feel and realized that photos were really about the moments.” Photography is about remembering moments and sharing moments, and the Moment team wants to facilitate that emotional experience with easy-to-use, powerful lenses that attach to mobile phones. Early indications from the Kickstarter raise suggest that the vision resonates with many people. The team set a goal of \$50,000 and raised \$451,868.

Moment is focused on what Marc calls “picture takers.” *Photographers* are professionals; *picture takers* are the people who have day jobs but love using their mobile phones to document their lifestyle, their weekend adventures, their kids. The success of Instagram suggests that there are quite a lot of them. “We don’t really believe in building customer profiles: ‘this is Jo and she works here and these are the products she buys.’ We look for the intrinsic needs,” Marc says. Picture takers are creatives who happen to snap photos in their spare time, so the Moment team is focusing on creating mobile lenses that prioritize speed and convenience, ideal for everyday use.

“It takes a couple of years to really know your brand—to get the details right, to know the customers, to understand why they’re buying,” Marc says. The team is diving into their Kickstarter backer profiles to learn more about their customers—how they heard about Moment, and why they bought it. They’re using this data to better understand the demographic and psychographic characteristics of their target market.

However, they’d begun to reach out to potential early adopters and influencers long before attempting a crowdfunding campaign. “We found a group of picture takers local to us, so we could go have coffee, show them the product, and get their feedback,” Marc says. That group has helped the team along the way. Marc adds, “They buy into the vision—it’s so much more than ‘here’s a widget.’ They’re interested in who the company is and what we believe, so they’re helping us along the way.”

The Moment team has identified the one thing in the world that they will be the best at: their mission is to deliver the best mobile photography products. With that goal in mind, they're laser-focused on product development. "We're not working on retail distribution, because that would require hiring people and spending money and margin on it," Marc says. "We're focusing on building a team that's unbelievable at product."

While the Contour experience was painful, Marc has applied the lessons he learned to skillfully crafting a clear brand mission and identity for his second company. The Moment team has prioritized branding from day one, and they're off to a great start.

Your brand name and personality are the cornerstones for the rest of your visual assets: logo, graphics, color palettes, and icons—and you have many creative choices to make. Certain colors evoke specific emotions. A logo can be a word ("Google"), a picture (Apple's apple), or a combination of the two (the 1992–2011 Starbucks logo). The goal is to create representative visuals that are immediately recognizable and memorable and that retain their impact when displayed across different mediums.

The sensory experience should be coherent and in line with the brand personality. For example, if your brand personality is elegant and sophisticated, a low-resolution cartoon animal logo would seem incongruous. Visual assets should fit cohesively with the look and feel of your product, including any software or apps experienced by the end user. For a good example of precise execution around visual identity, check out Google's [Visual Assets Guidelines](#).

Producing quality brand assets takes time and costs money. If you don't have the resources or desire to work with a branding agency, your designer is the person most likely to be responsible for this process. If you don't have someone with design experience on the team, hire an expert contractor. Brand assets might evolve over time, but you'll want a polished appearance from day one. And just as with everything else in life, you get what you pay for. Expect to pay \$50 to \$100 an hour for a professional.

The points at which brands interact with consumers are called *touchpoints*. To identify touchpoints, think about your outreach channels: media, packaging, advertising, environment (e.g., stores). Possible touchpoints include websites, emails, apps, blogs, TV, trade shows, exhibits,

print materials, circulars, billboards, videos, kiosks, retail shelves, social media...basically, anywhere in the physical or online world that a consumer might encounter your brand.

Touchpoints can be quick or sustained, personalized or mass-market, real-time or static. Product design consultancy [Hello Future has an excellent matrix that illustrates this](#), as shown in [Figure 4-2](#). Note the position of “campaigns” (advertising) at the bottom left: quick and mass-market. Up at the top right are “platforms,” which are long-term and sustained.

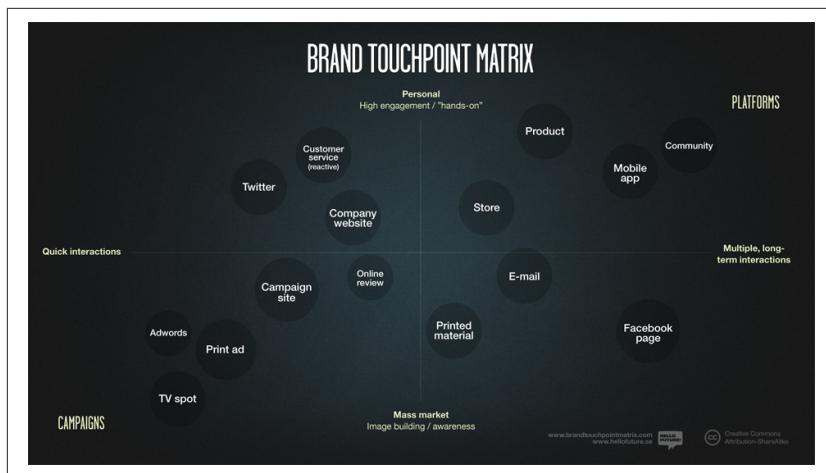


FIGURE 4-2. Hello Future's Brand Touchpoint Matrix (used under [Creative Commons Attribution-ShareAlike license](#))

Consumers might encounter touchpoints at the prepurchase, purchase, or postpurchase stage. The goal of a prepurchase interaction is to shape a consumer’s perception of your brand and communicate your value proposition. You are attempting to increase the consumer’s likelihood of buying your product. At the point of purchase, the goal is not only to make the sale, but also to establish a deeper relationship. Postpurchase communications are geared toward building loyalty, ensuring satisfaction, and turning customers into brand evangelists. Across all touchpoints and at all phases of the purchasing decision, you’re selling the brand, not just the product.

The consumer’s experience with your company at any given touchpoint is known as the *brand experience*. The total of interactions at various touchpoints over time results in a cumulative experience. Both individual and cumulative experiences matter. [Chapter 10](#) discusses metrics in more

detail, but it's worth noting here that you will want to have mechanisms in place to gather data about your customer's experience at each touchpoint.

As soon as you begin to communicate with the public, you should be striving for a consistent presentation of your brand across all possible touchpoints. Consistency applies to both the message content and tone, anywhere that your brand name or logo appears.

Positioning and Differentiation

Your *brand position* is the space in a given market that you occupy in the minds of consumers. It's your unique niche. Customers mentally rank brands. How would you rank McDonald's, Burger King, and Wendy's? Understanding what is special about your product and what position it occupies in the market is a critical step toward gaining market share among your target audience. In the soft-drink market, 7UP was number three behind Coca-Cola and Pepsi. When it began to identify itself as the "UNCOLA," it made itself the leader in a different category: alternatives to cola.

Positioning is a function of three elements: customers, competitors, and a characteristic. The *customers* are the target market you're going after: whom are you trying to reach? The *competitors* are the other companies that are already in the market. The *characteristic* is your differentiator; in marketing, it's called the *point of difference*. Early in the process of market research, you identified ways to differentiate your product from the competition: by features, price, or some other factor. A powerful point of difference for positioning your brand is something that's both *defensible* (your competitors can't quickly replicate it) and important to your target customer. As mentioned above: you can't be all things to all people. Specificity is key.

Marketing expert Geoffrey Moore has a template for synthesizing a thorough positioning statement in his book *Crossing the Chasm* (Harper-Business):

For (target customer) who (statement of the need or opportunity), the (product name) is a (product category) that (statement of key benefit—that is, compelling reason to buy). Unlike (primary competitive alternative), our product (statement of primary differentiation).

This statement incorporates all of the different preproduct considerations we discussed in [Chapter 2](#) into one sentence and synthesizes them into a single message. [Chapter 10](#) returns to positioning and differentiation within the context of marketing. In the preproduct phase, an understanding of whom you are building for and what position you wish to occupy in the market will provide you with a framework against which to make product decisions.

Brand development is an ongoing process, and it's worth your time. If you create a brand synonymous with quality and a joyful experience, the resulting loyalty and satisfaction will translate to increased customer retention...and increased revenue. Recognizing the importance of branding to the overall success of the company, some startups make their first in-house hires early. For example, Nest's third employee was sales and marketing expert Erik Charlton (see how Nest built its brand right from the start in "[Nest Branding: A Case Study](#)" on page 75).

Other startups hire a branding agency. Regardless of the approach you choose, it's important to begin thinking about branding as early as possible. From the minute you exit stealth mode and the public becomes aware of your existence, consumers—as well as potential hires, partners, and investors!—are forming a perception of who you are. The more actively and thoughtfully you shape that perception, the greater your chance of becoming a successful company.

Nest Branding: A Case Study

Nest is a connected-devices company on a mission to reinvent “unloved,” but important, products in the home. Its first two offerings were elegant reimaginings of the thermostat (Nest Thermostat) and the smoke/carbon monoxide detector (Nest Protect). In addition to selling direct on its website, Nest makes its products available through retail partners, including Best Buy, Apple, Lowe's, and Home Depot. Matt Rogers, cofounder and VP of Engineering, was previously a firmware engineer at Apple, where he worked on the iPod. In this first of two case studies on the company, he discusses the importance of branding.

The Nest team began to create their brand identity long before they publicly announced the company or the product. “We knew we had to build a consumer brand from very, very early on,” Matt remembers. “We made it a priority. I think a lot of companies in our space, and a lot of companies in general that

are building for the first time, spend a lot of time on the product and the technology. The brand and how you're going to market it is just as important."

As evidence of the extent to which Nest prioritized branding, Matt points to the team's early hiring priorities. The first two hires were engineers. The third hire was Erik Charlton, currently the VP of Business, who was originally brought on to run sales and marketing. While Matt and the engineers worked on building and designing the product, Erik and Tony Fadell, Matt's cofounder, spent a lot of time on the story behind it. "You can build a great product, but if you can't explain what it is and how it works really simply, and then build a story around it, it's not going to sell," Matt says. The team thought about what the brand imagery would look like, how they would talk about the brand, and how they would portray their products.

Nest ultimately chose "unloved devices" as their way of describing the many products in the home that were traditionally overlooked. There are many thermostats on the market; the Nest thermostat would differentiate itself by being a *loved* product. To deliver on that promise, the team worked on creating a user experience and design replete with what Matt describes as "that ineffable quality that makes people want to touch, hold, play with your creation." They prioritized clean design and smart functionality, and fought feature creep.

The brand and story are very important for selling a product to consumers. But having a distinct brand identity can give you a leg up with retailers as well, particularly for an early-stage startup. Big-box retailers are often wary of dealing with startups, because they prefer to avoid contracts for single-SKU companies with unproven products. Matt observes, "When you speak to retailers about a product and already have the whole story around it and how you're going to market it, it makes you much more impressive."

The Nest team made a strategic decision to approach Best Buy first. Traditional (unloved) thermostats are primarily sold at home-improvement and hardware stores; Nest wanted to be on the shelves of a consumer electronics powerhouse. The team's first conversation with the retailer happened soon after they started the company, before the product was even built. They wanted to gauge Best Buy's interest in selling a thermostat, something they had never sold before. "When we told them what we were working on they laughed," Matt says. "They said, 'Really? We don't even sell thermostats. Why should we be involved in this?'"

The team had anticipated this. Their first blog post—"Thermostats? Yes, thermostats."—introduces the company by poking fun at the skepticism and

then goes on to clearly articulate Nest's value proposition and differentiators: beautiful design, smart (it learns user temperature preferences and habits), remote-controlled via smartphone, and reduces energy bills. They pitched that vision to the representatives from Best Buy.

Although they kept their product roadmap secret from everyone (including retail representatives), Nest prioritized creating a brand mission—"We rethink unloved devices"—that was bigger than its initial product and would easily extend to other products. The founders applied values they'd developed during their time at Apple—clean design, attention to detail, delightful user experience—to every aspect of product development. The result is a product loved by many (the first run was **sold out** for months) and a brand name synonymous with beautiful connected devices.

Now that you've found your team, identified your customers, targeted your market, and begun to formulate your brand, it's finally time to start building the prototype.

TOM EISENMANN, EDITOR

MANAGING STARTUPS

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Why I Left Consulting and Joined a Startup

Michelle Wetzler



Whether you're a technology consultant or you're in a startup, there's a good chance we have something in common. I call it career commitment avoidance.

The #1 reason I chose consulting as my first job after graduation was that I didn't want to decide where I would work, in what industry I would work, or even what I would really *do* on a day-to-day basis. I wanted to do a lot of things, and picking a single one of them just seemed too limiting.

With new projects, new clients, and the expectation that employees will "grow into" whatever role they get next, consultants never really have to decide who they're going to be in life, and that can be very liberating.

Like many others entering this profession, I figured after a couple of years I would gain the perspective I needed to hone in on my dream job. Years later, that still hadn't happened.

I started revising my notion of a dream job. I realized the right job for me isn't one job. It's a career that changes a lot, where I get to learn new things all the time. I began to wonder if consulting was the dream job. Maybe the reason I'd stuck around for so long was that consulting is the combination of so many things I want in a career:

- 1. Learning a lot, fast.** When your clients are paying \$XXX/hr for you to be there, they expect you to know stuff. A lot of stuff. On top of absorbing obscure technical know-how for each of my projects, I learned how to be accountable and manage a team.
- 2. Emphasis on people and teams.** I worked on teams of 2, teams of 20, and multimillion-dollar teams of over 100 consultants. Working on a consulting project is truly a bonding experience. Since most people on the team fly in to work for the week, you're not just doing hard work together. You're also eating every meal together, getting shit-faced together, and living in the same hotel. You spend more personal time with these people than with your spouse. What's the #1 reason consultants give when asked what they like about their job? "The people."



3. **Merit-based compensation.** Some people would hate it, but knowing that I would be ranked against everyone else at my level, then recognized and paid accordingly, was motivating for me (I'm a little bit competitive).
4. **Work hard, play hard.** That's such a clichéd phrase, but there are some really intense people in consulting, and it can be energizing to be around them. They run marathons, go snowboarding on weeknights, run charity events, and more—all on top of working inhuman hours. There were times when I would work 13-hour days, party until 3 a.m., then do it again the next day. Seems a bit crazy now, but it wasn't a drain. It was fun.

So why did I quit a great job and join a startup for less pay, less job security, and significant risk to the relationships I have with my fiancé (Keen's CEO) and best friends (everyone else at Keen)?

Mostly, I was growing tired of implementing <some old-school technology> to solve <some generic enterprise problem>. I'm a builder at heart, and I wanted to contribute to Creating a Thing, not just bolting together boring software other people had halfheartedly built 8 years ago.



Figure 75-1. Crying at the bottom of the shower

There are also some, um, less pleasant aspects of being a consultant. Unless you are really lucky, you will at some point wind up on a project with asshole executives and a commute that makes you hate life (see [Figure 75-1](#)). Some people say these projects build backbone. I think the only good thing about them is that they are catalysts for a career change. It was one of these projects that finally changed my thinking from “I need to figure out what to do with my career” to “I need to make a change right now.” I quit my job and started looking for the next great thing.

That's how I wound up here at Keen. And guess what? Startups share many of the qualities I love about consulting:

1. Learning a lot, fast. Here are just a handful of things I've learned in the past few weeks:

- How startup financials work, so I could comprehend seed round financing and negotiate my own salary and equity compensation
- Our system architecture and associated vocabulary (JSON, REST, Flask, Mongo, map reduce, etc.)
- How to create my first Ruby program, and integrate it with Keen
- What differentiates our company from other players in the analytics space
- How to get strangers on the Internet (and at conferences, meetups, and parties) to talk to me about analytics (we call this customer development)

You get the picture. In a startup, you get to be involved in all kinds of aspects of the company, and there's always more to learn and build.

2. Emphasis on people and teams. While people are important in a consulting firm, they're absolutely critical in a startup. With an industry average of a 20% turnover rate, consulting just doesn't offer the same level of quality you can get in a six-person startup, especially when it's six people who took great risks based on their faith in each other. The team at Keen is the #1 reason I joined the company.

3. Merit-based compensation. My equity stake and the small size of our team means my work directly contributes to the value of the company, which in turn contributes to my own personal net worth. In short, I can enjoy the company's successes as if they were my own successes, because they are. That's a rewarding feeling, and it definitely outweighs the salary cut I took to join Keen. Besides, I'm smart enough to have figured out that making anything over a certain amount of "comfortable income" contributes very little to my overall happiness.

4. Travel. Travel is one area where startup perks are not going to compare to consulting, but startups offer significantly less pain in this area. I don't get to fly much for work these days, but I also don't have to spend two hours a day driving to a client's office. My daily commute is now measured in steps, not hours.

5. Work hard, play hard. There's this perception about tech startups that the employees are working all night, sleeping under desks, pooping in socks, and bleeding code. Startup pace is supposedly so fast you can't even imagine it. People say things like "a year in startup will advance your career 37 years!"

I've worked around the clock before. One time, Kyle literally spoon-fed me dinner while I coordinated a critical go-live issue. Later that month, a lead told me that the overall productivity *and health* of our Mumbai team were declining because people kept coming to work sick. But perhaps the most eye-opening experience came when one of my direct reports *asked my permission to eat dinner*.

That isn't cool. It's fucking embarrassing.

Consulting firms say they value "work-life balance," but the truth is that consultants themselves tend to be workaholic types, especially senior leaders. No matter how many vacation days, flexible work schedules, or company wellness policies are offered, there are folks who are going to work as much as possible. In projects where this is taken to extremes, you get consequences like the ones I just described.

That's why it's a huge relief to join a team that values a sustainable pace. The Keen founders have a term for it: "rested racehorses." We are an elite team that can run fast, but we don't sprint every day. We need to be rested so we can sprint when it's truly important.

Finally, I want to circle back to the original lure of consulting—the lack of commitment to a "job." Startups take this freedom to the next level. There is a strong culture of making it your own way, building your own brand, and focusing on whatever you feel is important. After spending a certain amount of time around entrepreneurs, you begin to wonder where you ever got the idea of a "career," an "employer," or a "profession." This is a much more creative and opportunistic lifestyle.



If you're stuck in the consulting rut, consider joining a startup. Just like consulting firms, startups value smart, hardworking generalists who can learn quickly. You'll have significantly more ownership of the business, the product, your day-to-day activities, and your career path. You'll have the opportunity not only to build a great team and product, but a great company. So, what's stopping you from making the switch?

If you're thinking about a consulting career or joining a startup (I would highly recommend either!), I'm happy to help in any way I can.