

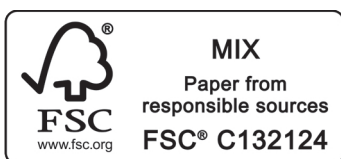
An Unorthodox Guide
to Making Things Worth Making

TONY FADELL



HARPER
BUSINESS

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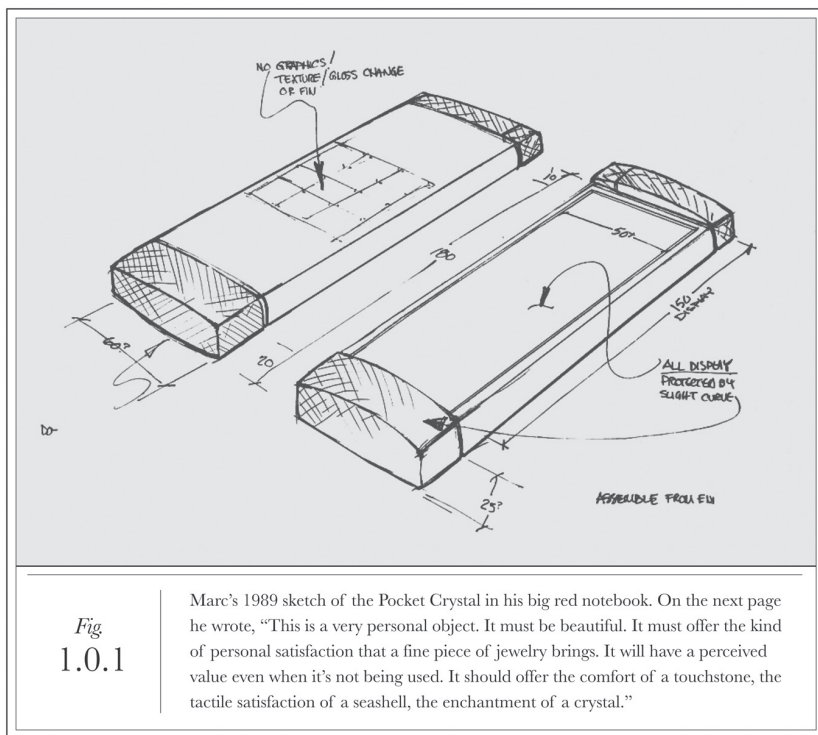
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Part

1

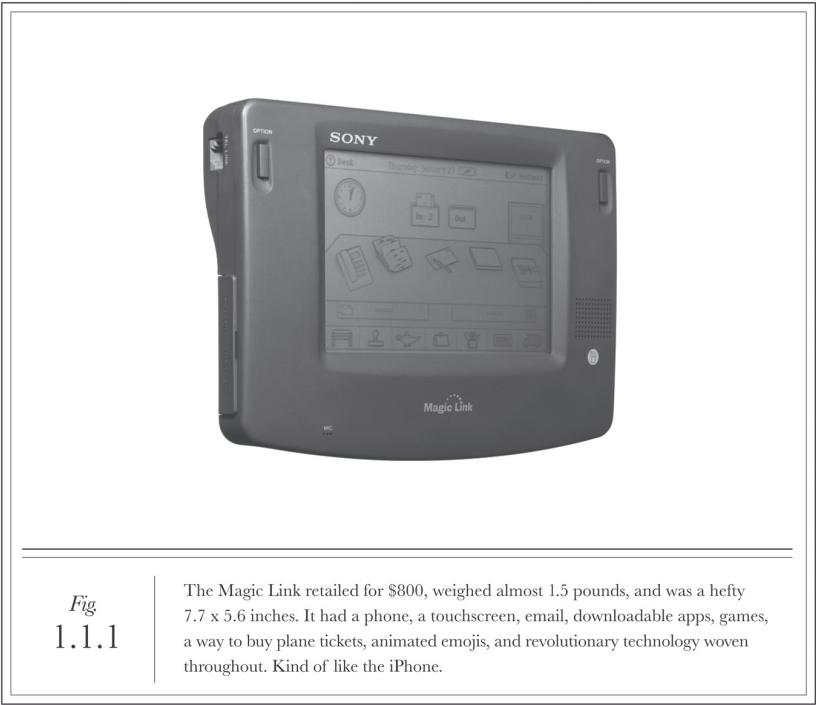
BUILD YOURSELF



Chapter

1.1

ADULTHOOD



The Magic Link retailed for \$800, weighed almost 1.5 pounds, and was a hefty 7.7 x 5.6 inches. It had a phone, a touchscreen, email, downloadable apps, games, a way to buy plane tickets, animated emojis, and revolutionary technology woven throughout. Kind of like the iPhone.

Chapter
1.4

DON'T (ONLY)
LOOK DOWN

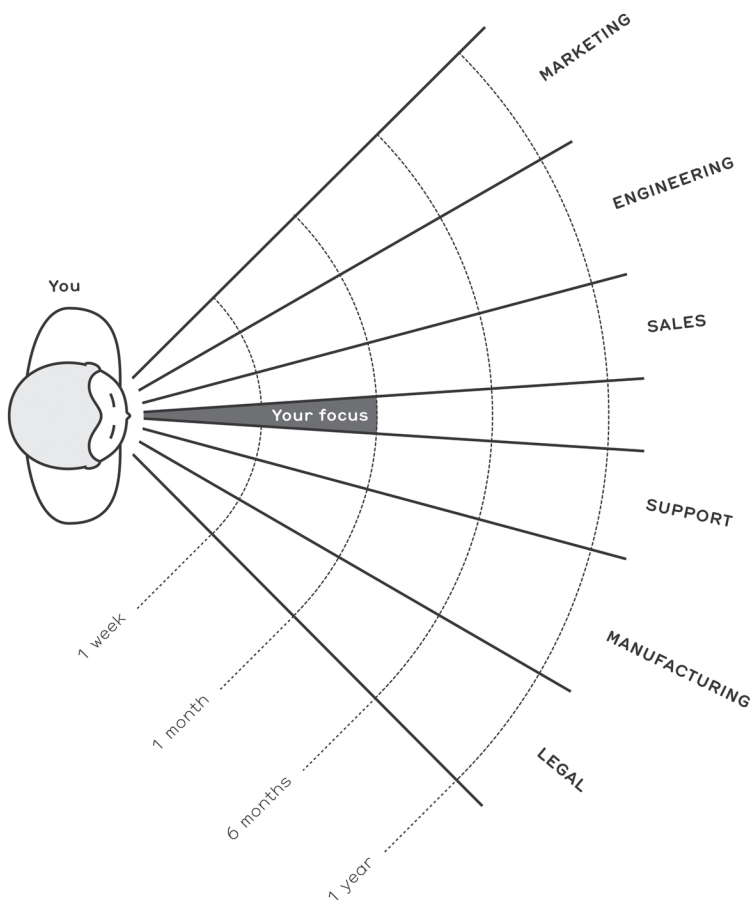


Fig
1.4.1

The details of the project right in front of you are crystal clear, but the farther you look out, the fuzzier everything becomes. And different teammates are gazing at different points on that timeline.

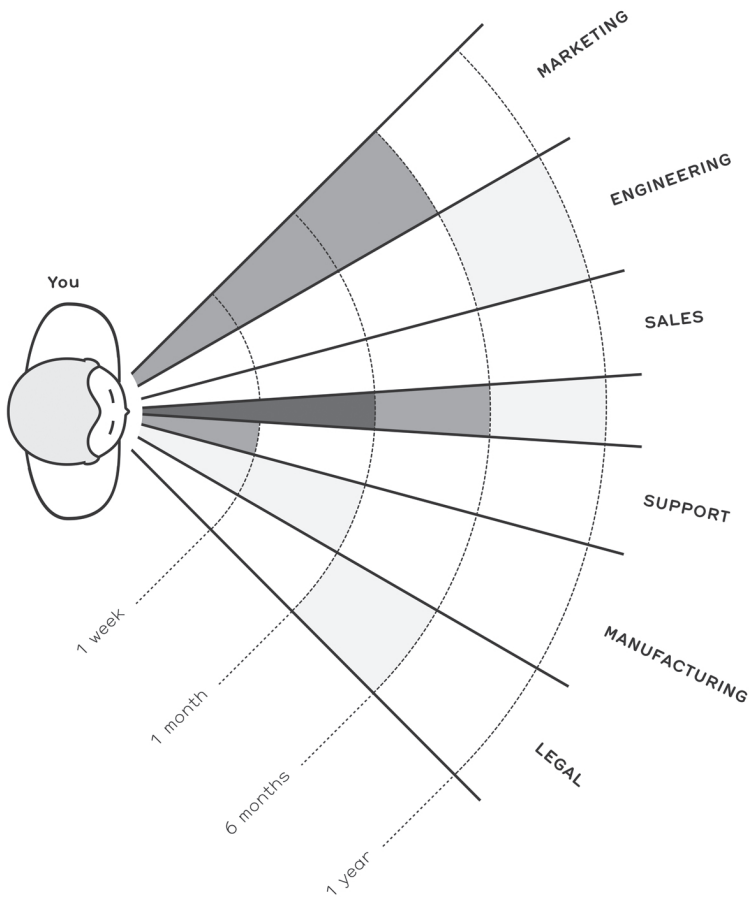


Fig.
1.4.2

When you look up and around, you can see if your medium- and long-term goals still make sense, and understand the needs and concerns of the teams around you. Talk to your internal customers, whoever you're a customer of, and the people who are closest to the actual customer—marketing and support. That's how you'll know if you're on track or if things are going seriously sideways.

Part

II

BUILD YOUR CAREER



Fig
2.0.1

Released in August 1997, the Philips Velo was 6.7 x 3.7 inches, weighed 374 grams, and cost \$599.99. It allowed mobile professionals to email, work on spreadsheets and docs, and update their calendar. Velo's software was built on Windows CE, but its hardware guts were from General Magic.



Fig
2.0.2

The Nino launched in 1998. It measured 5.5 x 3.3 inches, weighed 220 grams, and cost \$300. Nino had a Windows CE operating system and rudimentary voice control software, and was one of the first devices to adopt downloadable audiobooks from Audible.

Part
III

BUILD YOUR PRODUCT

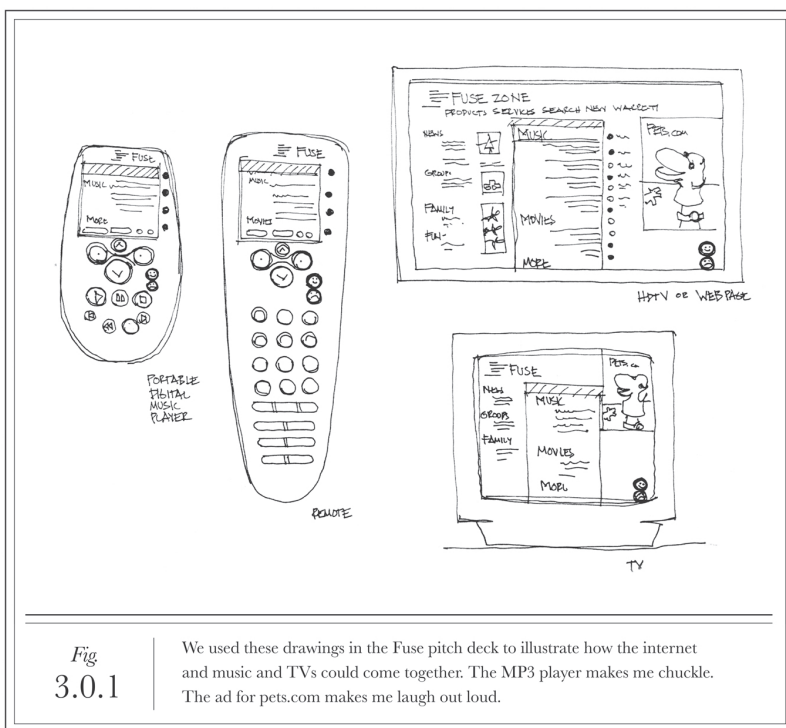


Fig
3.0.1

We used these drawings in the Fuse pitch deck to illustrate how the internet and music and TVs could come together. The MP3 player makes me chuckle. The ad for pets.com makes me laugh out loud.



Fig
3.0.2

This is the Styrofoam model I made in March 2001 to convince Steve to green-light the iPod project.



Fig
3.0.3

This was the first iPod, released in October 2001 with the famous tagline “A thousand songs in your pocket.” It was 4.02 x 2.43 inches, had a \$399 price tag, and was pretty damn close to the original vision model I’d cut seven months before.

Chapter

3.1

MAKE THE INTANGIBLE TANGIBLE

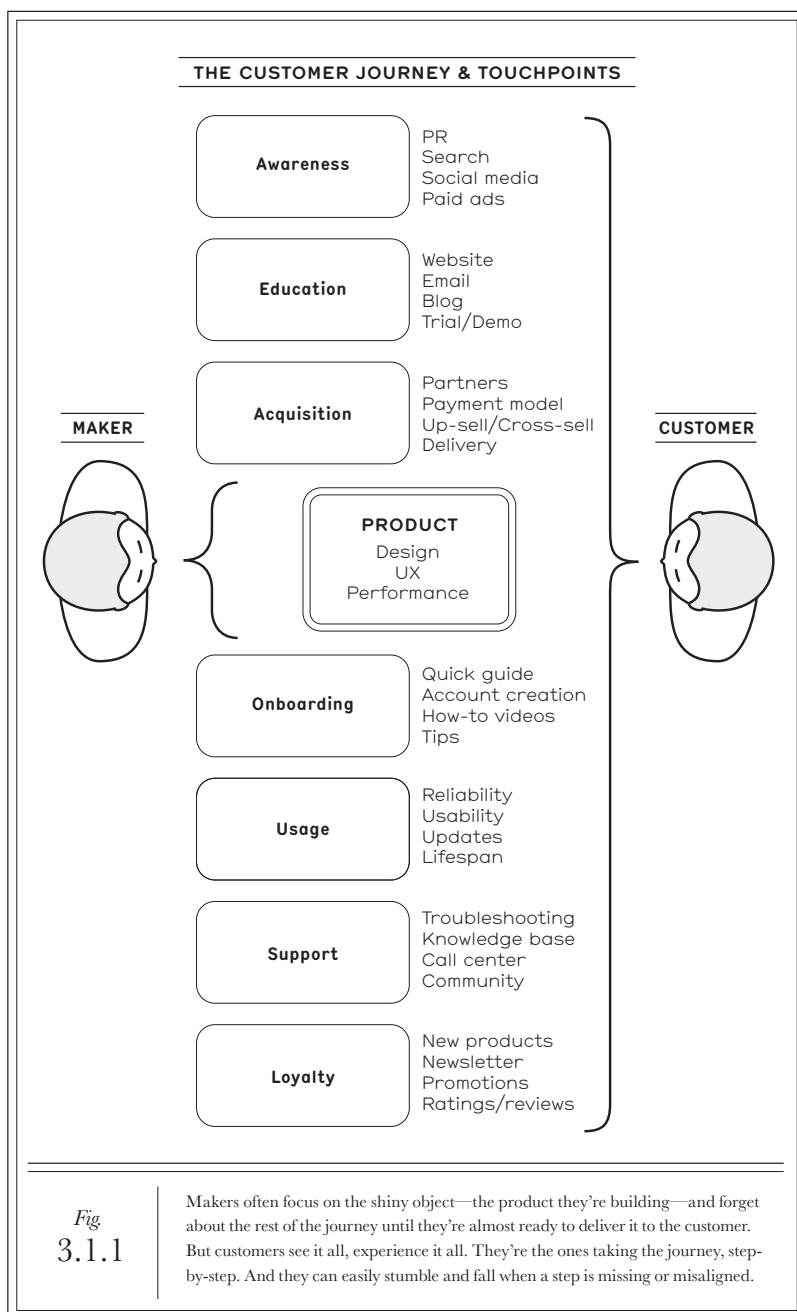




Fig
3.1.2

Almost a year before we launched the Nest Learning Thermostat—before we were even sure of its name—we already had this early packaging prototype that we used to refine our marketing messaging.

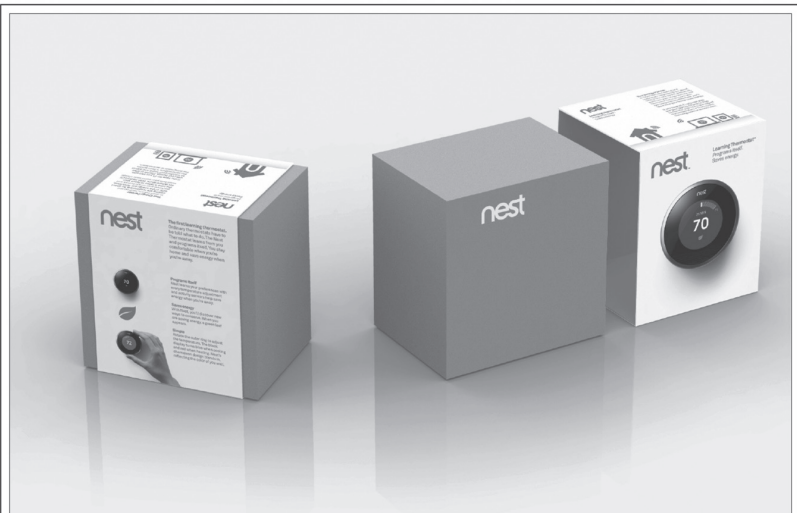


Fig
3.1.3

This is what we actually launched with in October 2011. The words focused on learning and energy savings; the design made it feel simple and premium.



Fig
3.1.4

The original Nest screwdriver cost around \$1.50 to make, so including it in every box was hugely controversial on a team that was focused on being lean and profitable. But the screwdriver's friendly shape made installing the thermostat yourself seem less daunting and it was so handy that it functioned as a marketing tool long after sale.

Chapter

3.4

YOUR FIRST
ADVENTURE—
AND YOUR SECOND



Fig
3.4.1

Behold, the Blackberry—lovingly known as the Crackberry to its disciples. This is the Blackberry 7290, released in 2004. It had web browsing and email, a backlit QWERTY keyboard, and a black-and-white display that could show a whopping fifteen lines of text.



Fig
3.4.2

The original iPhone launched in 2007 was tiny—smaller than any iPhone you can get today. It was 4.53 x 2.40 inches, weighed 135 grams, and had a 3.5-inch screen. By comparison, the iPhone 13 mini measures 5.8 x 2.53 inches, weighs 141 grams, and boasts a 5.4-inch screen.



Fig
3.4.3

It's easy to see Steve's point when you compare the Blackberry Curve 8310 (released in August 2007) to the original iPhone (released in June 2007). The Blackberry's screen was only 2.5 inches. Its keyboard was so robust that almost no screen remained.

Chapter
3.5

HEARTBEATS AND
HANDCUFFS

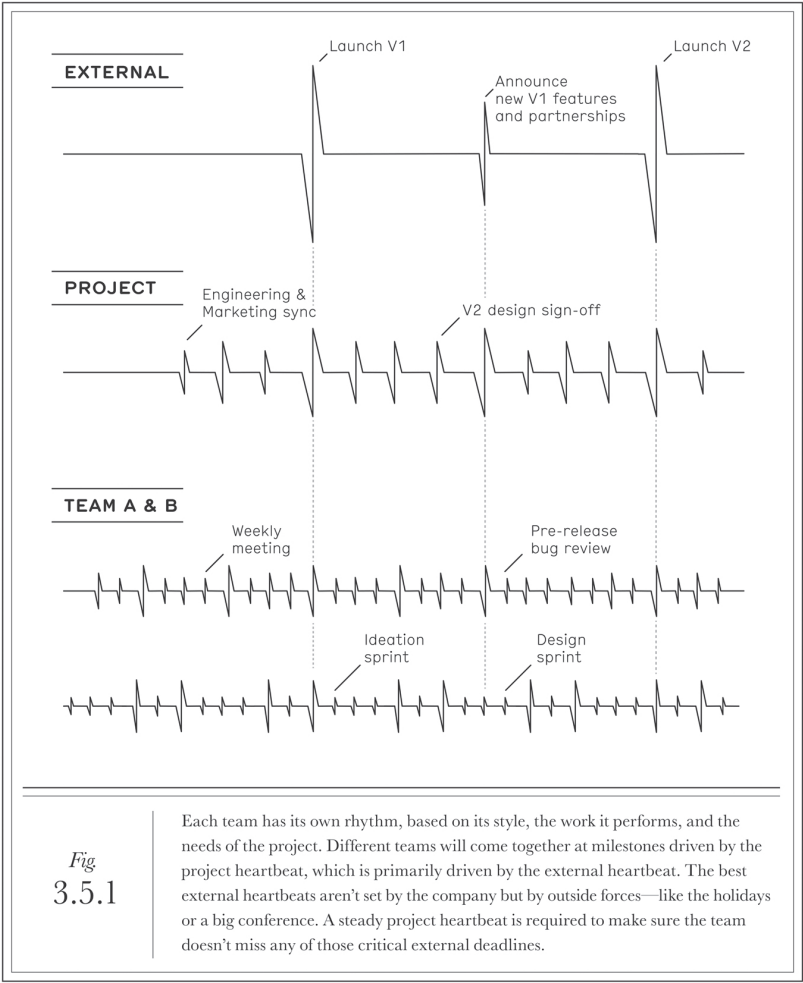
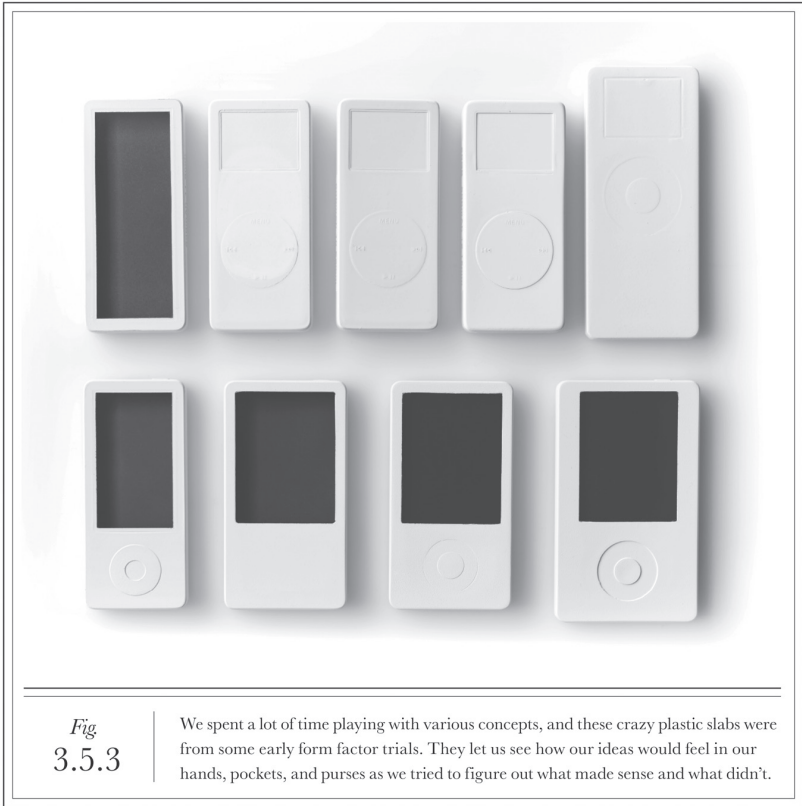




Fig
3.5.2

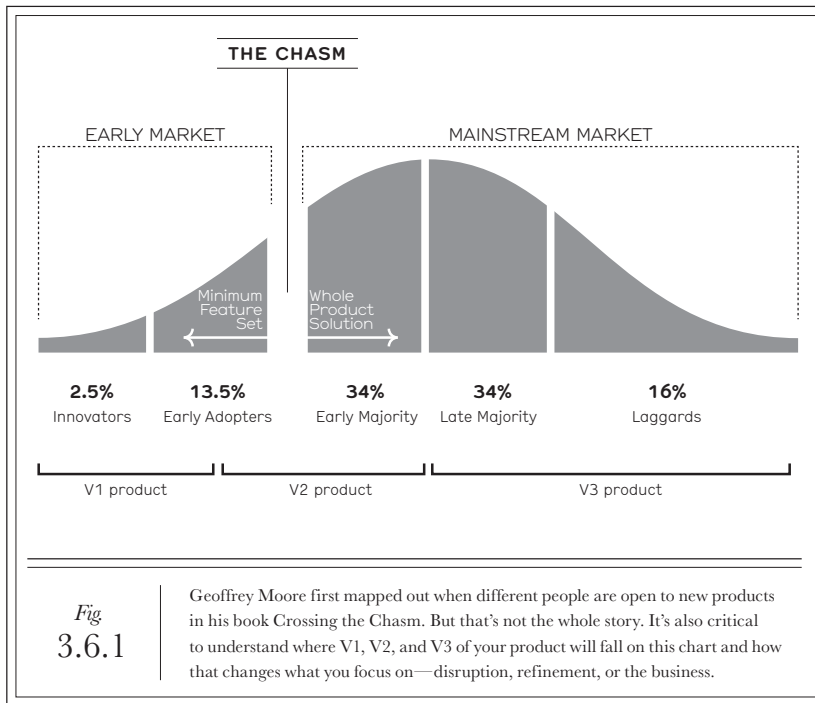
This iPod-phone model wasn't actually one of ours—it arrived from a manufacturer who'd heard rumors that we were working on a phone and wanted to pitch us their idea. This odd-looking device shows the impossibility of designing a phone around the click wheel. The top half would swivel around 180 degrees so you could use the screen if you were dialing a phone number or texting—not a bad idea, actually, but it's not an iPhone.



Chapter

3.6

THREE GENERATIONS



Who's it for

V1	V2	V3
Innovators and early adopters.	Early majority.	Late majority and laggards.
These are the people who deeply love whatever it is you do—they might be gear heads or obsessed with technology or just really into your space. They'll have an emotional reaction to anything new and cool and will buy it fully aware that it will probably be buggy.	These are the trendsetters. They watch the early adopters and will read some reviews before committing. They expect product bugs to be ironed out, decent customer support, and an easy way to learn about and purchase the product.	This is everyone else—the mass customers who expect perfection. They'll only buy the clear winner in the marketplace and won't put up with any hassles.

Product		
V1	V2	V3
You're essentially shipping your prototype.	You're fixing the stuff you screwed up with V1.	You're refining an already great product.
Customer acquisition costs will be sky-high; some features you really wanted will be missing; your marketing, sales, and customer support will all be a little wonky; you won't have the partnerships you'll need; and you'll still be discovering everything you got wrong.	At this stage you'll know what your problems are and how to fix them—both the unexpected issues that inevitably crop up after you launch and the stuff you cut corners on the first time. V2 usually comes swiftly after V1 because you've learned so much so fast and you're dying to get it all into the next generation.	Your focus should be less on the product and more on the business and polishing every touchpoint of the customer lifecycle.

Outsourcing vs. building in-house		
V1	V2	V3
Figuring things out and outsourcing.	Start bringing more things in-house.	Lock in internal expertise and selectively outsource smaller projects.
You have a small team so you have to outsource a ton of functions—marketing, PR, HR, legal. This will enable you to move fast and get a lot done, but it's expensive and won't scale.	You take everything you've learned from the third-party teams you worked with for V1 and start building that muscle in-house. [See also: Chapter 5.3: Design for Everyone; <u>But you shouldn't outsource a problem.</u>] Your teams and level of expertise grow.	Certain key internal teams will be focused on the most important differentiators of your business. That may mean doing branding in-house or legal or whatever is most important to your company. As these teams grow and do more, they begin outsourcing again, but only for specific, smaller tasks that are closely supervised by the internal team.

Product		
V1	V2	V3
Product market fit.	Profitable product.	Profitable business.
<p>This really just means getting the product right enough to prove there's a market for it so you can cross the chasm.</p> <p>If you can't prove that at least early adopters will buy your V1, then you have to go back to the drawing board and start over.</p>	<p>At this point you'll widen the market, start nailing more parts of the customer journey, and might even be making a little money per product—but probably not enough to cover costs.</p>	<p>Assuming you reached gross margins with V2, you may want to aim for net margins with V3. This is when you begin negotiating with partners for better deals, optimizing your customer support and sales channel, and buying new kinds of media for marketing. Hopefully you'll finally get enough volume that you can start to reduce your prices and actually make real money. With V3 you have a chance to get it all right—the product, the company, and your business model.</p>



V1



V2



V3

Fig
3.6.2

With every generation the product became sleeker, slimmer, and less expensive to build. You can see the leap from V1 to V2 in the product itself. When we launched the first generation, it was the most modern, beautifully made thermostat on the market. The moment we shipped V2, the original instantly looked heavy and clunky and outdated. By the time we reached V3, the changes to the product were more subtle but our business had been completely reinvented—costs were driven down, we were selling in new channels and countries, we had a slew of new partnerships, and customer support had been streamlined.

Part
IV

BUILD YOUR BUSINESS



Fig
4.0.1

The Nest Learning Thermostat launched in October 2011 for \$249. It had a unique round 2.75-inch screen and measured 3.2 x 3.2 x 1.6 inches. It came with its own mobile app and had a built-in AI that learned your schedule and turned itself down when you were away.



Fig
4.0.2

The Nest Protect retailed for \$119, was 5.28 x 5.28 inches, and offered protection from carbon monoxide and smoke. False alarms could be hushed from the app and you'd get an alert on your phone if there was danger.

Part

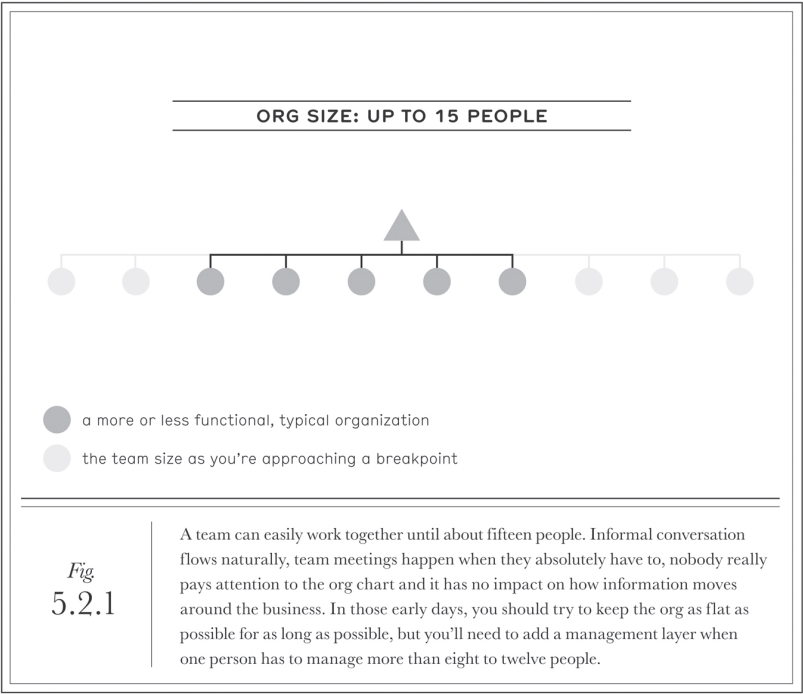
V

BUILD YOUR TEAM

Chapter

5.2

BREAKPOINTS



ORG SIZE: FROM 15 TO 40-50 PEOPLE

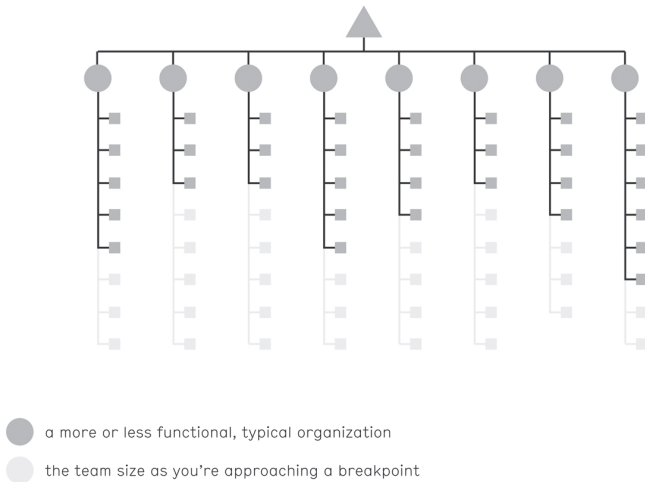


Fig
5.2.2

As you grow past fifteen people, a layer gets added between the CEO or leader and the rest of the team. It's at this point that silos can begin to form and communication can break down, as information is no longer evenly distributed. Some people will decide to stay as individual contributors, some will become managers. Make sure you prepare any potential managers to take the reins—don't just throw them into the deep end. To keep the org flat, try to avoid situations where managers only have two to three direct reports long term. If you're growing fast, you'll also need to hire senior leaders who can be hands-on—these people will grow into their roles as your company grows.

ORG SIZE: FROM 40-50 TO 120-140 PEOPLE

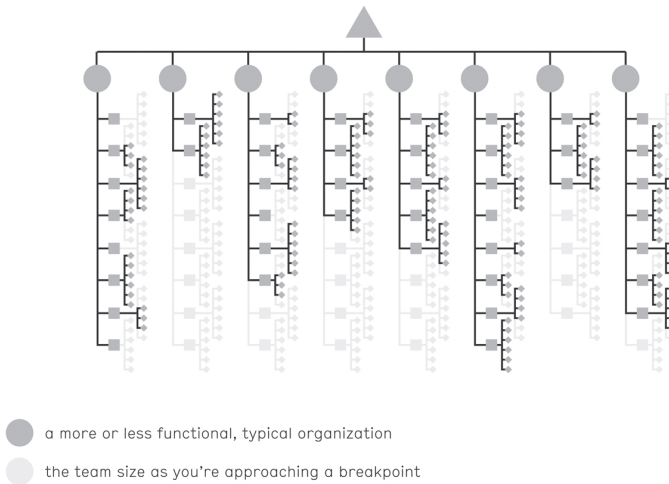


Fig
5.2.3

Now you have two layers between the CEO or leader and much of the team doing the day-to-day work of running the business, so communication has to be rethought again. Managers begin to manage managers, so you'll need to bring in management coaches to help you find out who's doing well, who could be a manager in the future, and who just needs a little help. You'll need to find ways to effectively communicate to the team, ensure that managers are communicating that same information to their teams, and make sure information from throughout the org funnels to the top. Lack of transparency from the bottom to the top and from the top to the bottom can breed distrust. Where there's a lack of data, distrust fills that void.

Chapter

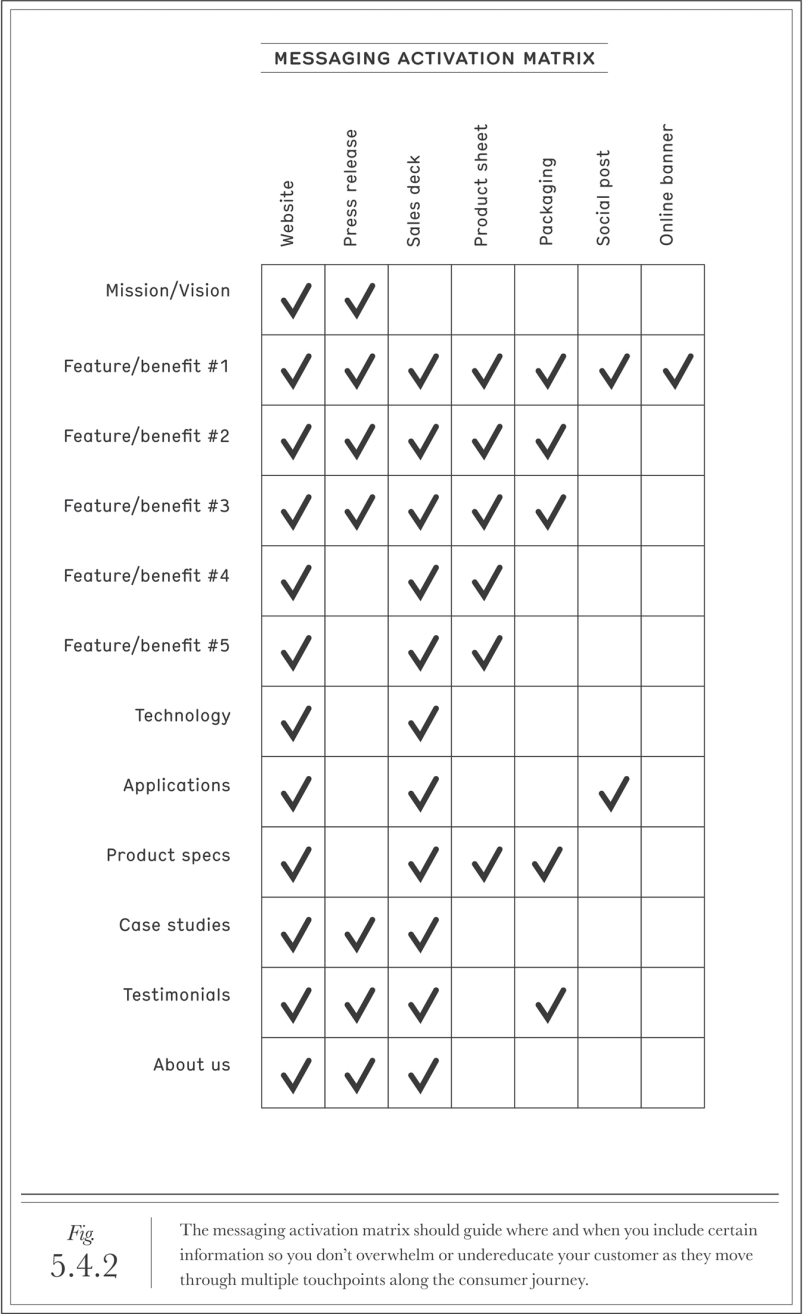
5.4

A METHOD TO THE MARKETING

WHY I WANT IT	WHY I NEED IT			
	WHAT'S MY PAIN		PAIN-KILLER	
I'm stuck-in-a-rut. I crave some INSPIRATION .	STASIS	I'm still in school or in my first cubicle. Maybe I'm trying to quit my job or start my own thing. But I don't know my next move.	Build helps me find that spark again and again. Everyone has to find their own spark. Build tells me where to look for it.	SPARK
I don't know how to start and where I should point my compass. I want some DIRECTION .	RAT-RACE	I've always done what everyone else is doing. I'm getting too comfortable competing for increasingly scarce resources.	Build helps me build a mental framework for the future and how to chart the shortest path to it.	LEAP-FROG
I can't relate to founders like Zuckerberg, Musk, etc. I want realistic ADVICE from someone who's been in my shoes.	INCONCEIVABLE	I want to learn from someone I can relate to, not a Harvard or Stanford drop-out.	Tony's path to Silicon Valley is relatable. He shares painful mistakes he's made along the way, so that I can avoid them altogether.	ACTIONABLE
Not another self-help business book! Give me a proven STRAIGHT-SHOOTER who says it like it is.	TIRED	No ivory tower. No expectation to turn around a tanker. I need small chunks that over time have big lasting impact.	Here's a guy who's built his career from the ground up. Every step is an aggressive step forward, fueled by passion and common sense.	FRESH

5.4.1

This is the template we created at Nest that I've now passed along to endless startups. It's been used for everything from medical diagnostic tools to sensors for shrimp farmers. Now we're using it for this book.





Chapter
5.7

LAWYER UP



Fig
5.7.1

This is the original Nest Cam, released June 2015, with its original warning label. Sometimes in life you just have to nestle your new product right next to a picture of a baby in mortal peril.

READING LIST

Here are some of the books and articles that have helped me, my friends, and mentors, in no particular order:

Give and Take: Why Helping Others Drives Our Success, Adam Grant

In Praise of Shadows, Jun'ichirō Tanizaki

The Monk and the Riddle, Randy Komisar

Why We Sleep: Unlocking the Power of Sleep and Dreams, Matthew Walker

The Messy Middle: Finding Your Way Through the Hardest and Most Crucial Part of Any Bold Venture, Scott Belsky

The Perfect Thing: How the iPod Shuffles Commerce, Culture, and Coolness, Steven Levy

Creative Confidence: Unleashing the Creative Potential Within Us All, David Kelley and Tom Kelley

Trillion Dollar Coach: The Leadership Playbook of Silicon Valley's Bill Campbell, Eric Schmidt, Jonathan Rosenberg, and Alan Eagle

The Hard Thing About Hard Things: Building a Business When There Are No Easy Answers, Ben Horowitz

Super Founders: What Data Reveals About Billion-Dollar Startups, Ali Tamaseb

Thinking, Fast and Slow, Daniel Kahneman

Noise: A Flaw in Human Judgment, Daniel Kahneman, Olivier Sibony, and Cass R. Sunstein

Beginners: The Joy and Transformative Power of Lifelong Learning, Tom Vanderbilt

Range: Why Generalists Triumph in a Specialized World, David Epstein

How to Decide: Simple Tools for Making Better Choices, Annie Duke

The No Asshole Rule: Building a Civilized Workplace and Surviving One That Isn't, Robert I. Sutton

A Curious Mind: The Secret to a Bigger Life, Brian Grazer

The Defining Decade: Why Your Twenties Matter and How to Make the Most of Them Now, Meg Jay

Work: A Deep History, from the Stone Age to the Age of Robots, James Suzman

Crisis Tales: Five Rules for Coping with Crises in Business, Politics, and Life, Lanny J. Davis

Crossing the Chasm: Marketing and Selling Disruptive Products to Mainstream Consumers, Geoffrey Moore

Entangled Life: How Fungi Make Our Worlds, Change Our Minds & Shape Our Futures, Merlin Sheldrake

Simple Sabotage Field Manual, U.S. Central Intelligence Agency, United States Office of Strategic Services, 1944 (<https://www.gutenberg.org/ebooks/26184>)

Read the Face: Face Reading for Success in Your Career, Relationships, and Health, Eric Standop

“Architect behind Googleplex now says it’s ‘dangerous’ to work at such a posh office,” Bobby Allyn, NPR, <https://www.npr.org/2022/01/22/1073975824/architect-behind-googleplex-now-says-its-dangerous-to-work-at-such-a-posh-office>

“Why and how do founding entrepreneurs bond with their ventures? Neural correlates of entrepreneurial and parental bonding,” Tom Lahti, Marja-Liisa Halko, Necmi Karagozoglu, and Joakim Wincent. *Journal of Business Venturing* 34, no. 2 (2019): 368–88.

BONUS



These are a few of my business cards from college and my 20's. It still makes me laugh that my official title at General Magic was "Silicon Sorcerer."



The Silicon Sorcerer himself, before he learned how to keep his desk clean.
This was taken around 1994 at General Magic, my first real job.



And this was taken in 2010—the very beginnings of my first really successful company. This was Nest Labs, founded in a garage in Palo Alto, with me, Matt, and our first few employees.



This is one of our earliest prototypes of the Nest Learning Thermostat. And a small reminder that even though the technology was cool, the tech was never the point.



It was all about the people who used it. Like my kids, pictured here trying out the prototype at our house.