

BEFORE YOU CODE

VALIDATE YOUR IDEA,
BUILD A BETTER PRODUCT, AND
PLAN YOUR WAY TO SUCCESS

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FOREWORD BY SARAH DOODY



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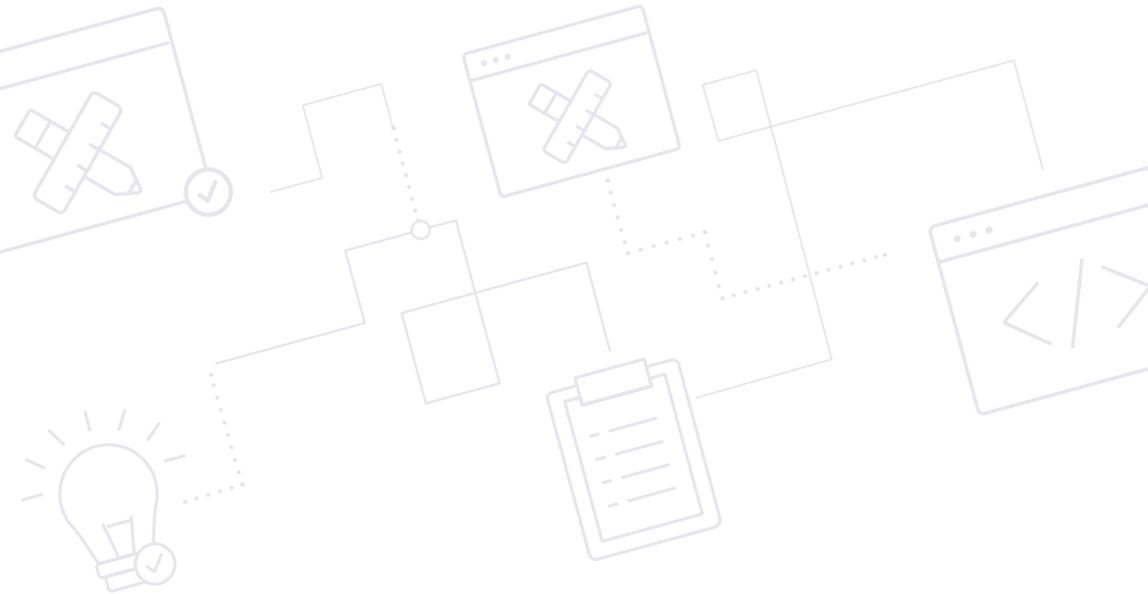
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"Writing code doesn't matter if there's no strategy behind it."

-B. Cordelia Yu, 18F



Introduction

Snapchat. iPad. Trello. Basecamp. All of these products have something in common: their success in the market.

On the flip side, there are countless market failures: Google Wave, Twitter Music, Facebook Deals, Zune, Google Glass, Amazon Fire Phone, and Qwikster, to name just a few. And in between, there are thousands of apps in decline – think Foursquare, MySpace, Angry Birds, etc. – whose initial burst of success has tapered off as people move on to the next big thing.

As of today, there are over 2 million apps in the iTunes and Google Play app stores. More than 90% of them are zombie apps, unfindable by any means except searching directly by name. Websites and web-based products fare no better: With more than a billion web pages in existence, getting onto that first page of Google search results is no small feat. It's a crowded and unforgiving ecosystem where only the strong survive.

So how do you ensure that your digital product is successful?

First, you have to decide what *success* actually means. Product teams tend to think in terms of the features and functionality that they plan to ship. Get the features into the product in time for the release date, and boom goes the dynamite! #winning

However, we will argue that success goes beyond the features listed on a product landing page. Why are those features included in the first place? Does your target audience appreciate the work you put in? Did they even notice? Did traffic or downloads increase? Are you solving larger societal problems with your work, as many websites and apps try to do? And how do you measure this impact effectively and consistently?

Those are just some of the possible metrics for measuring the success of your work. That leads us to our definition: **A successful website or application is one that meets the goals of its owner.** Why did they create the product in the first place? What problem were they trying to solve – and did they solve it?

This broad definition means that the ugly website you built on MySpace in 2005 might be successful. You wanted to learn a little HTML, follow your favorite bands, and post a daily photo of your lunch. Did you do those things? Then you succeeded! The tiny bit of traffic you got from your friends and family was a bonus, on top of the goals that you set.

If you're reading this book, chances are your ambitions are a bit beyond that early MySpace website. You have a unorthodox idea that you want to grow into something successful, but you have no idea where to start. Or perhaps you've chosen a starting point: You're thinking about the perfect shade of blue for your logo, or a list of features or screens, or the best way to reach your customers. Your product is just beginning. If that describes you, you're in the right place.

In this book, we'll teach you how to go from 0 to 100 with purpose and intention, to achieve success while understanding what works and how to repeat it. But first, let's look at some examples of what makes, or hinders, success.

Personality vs. Usability

The website for Lings Cars (www.lingscars.com) looks like a chaotic mess. (Recognize any elements from your 2005 MySpace page?) The bright, busy background, flashing animated GIFs, numerous calls to action, and cluttered content all seem to indicate an unusable, unsuccessful site. Indeed, Jen's students often ask if the site is for real, and whether it generates any business at all. And yet...



Lings Cars website seems overwhelming at first glance.

In a 2016 interview, Ling Valentine, the company's owner, noted that for her target audience, the website works perfectly. Citing more than \$106 million in revenue in 2015, Ling believes her success is because people want a real connection to a person with a personality, rather than a faceless, corporate car rental company. A closer look at her website shows that, despite the chaos, the design does point newcomers toward the place to start. There's no confusion about what the website is for; the messaging is literally all over the website. Ling's target audience loves the connection with the owner and her larger-than-life personality.

And this is important. Because while Ling breaks conventional rules about what constitutes "aesthetically pleasing" and even "usable" designs, she does so in a way that is consistent and powerful, to create a certain impact. A good analogy of how this works is with music. There are groups of notes

that sound pleasant together, arranged in a scale. When you first start writing music, you stay within that scale, following common progressions that sound good. As you learn more about the way different notes sound together and how they can be used to achieve different goals and moods, you can break some of those rules. Adding in notes outside the scale or deviating from common progressions can enhance a piece of music when done well.

The same is true for building web products. Once you've learned and understood the rules and their purpose, you can start to break them intentionally to achieve your goals. In this respect, Ling is something of a modern-day Mozart - able to break the rules without needing to learn them first; her intuition for what conventions to follow and what ones to break has created a website that, despite initial reactions, is wildly successful. While it's technically possible for you to have the same success as Ling based on your own intuition, a much better bet is to follow a thorough process. This book will teach you the skills to achieve repeatable success.

The University of Advanced Technology website (UAT.edu) has a much simpler design than Ling's Cars, with one main focal point, and seems to align with more conventional website patterns. Like Ling's Cars, UAT uses a scattered assortment of animated elements to attract attention. However, UAT's moving elements are part of the actual website navigation. They're not just decorative, which turns this interesting concept into a frustrating experience. The "ideas" floating around the woman's head are in constant slow rotation, which means you have to wait for the one you want to come around, and click on it before it disappears to the back again. The bottom navigation items periodically do the wave, unprompted - as they are in the midst of doing in the photo - making it hard to accurately select one of those sections.



The UAT site seems simple but is actually frustrating to interact with.

What is UAT trying to achieve with this website? Who uses it, and what do they want to know? It seems that UAT assumes everyone is a potential student, that they know everything about the university, and that they just need to review a specific degree program. UAT isn't a well-known brand, so it's likely that site visitors have some questions about what UAT is, whether it's a private or public institution, whether it's a for-profit or non-profit school, how long it's been in existence, and where it's located, to say the least. The home page does little to communicate any of this, nor does it indicate where one would go to get such information.

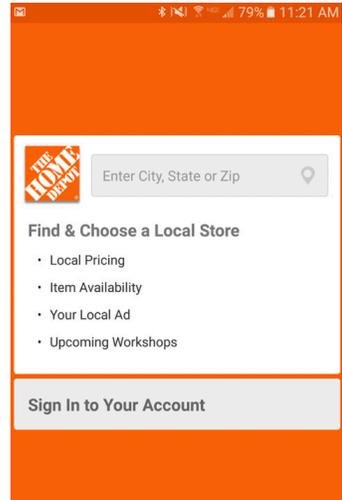
All of this is to say that simplicity and visual appeal aren't everything! Even though the UAT site is cleaner, simpler, prettier, and more "interactive" than the Ling's Cars site, the UAT site presents challenges for its visitors. It doesn't serve its users well, which means it doesn't do the job that its owners need it to do; therefore, it doesn't really succeed.

Trust and Goodwill

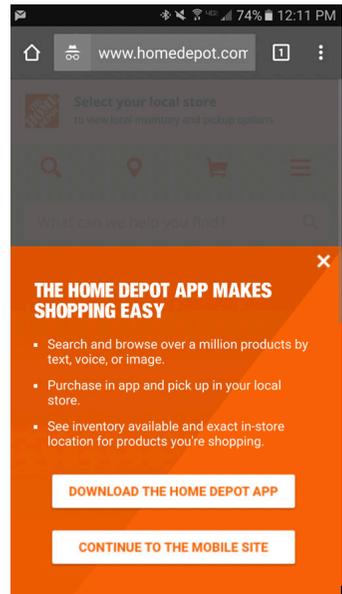
Mobile products can have their own challenges too. For example, the Home Depot mobile app forces you to choose a location and pressures you to create an account, all before you've done anything in the app.

I frequently buy things online from many places, including Home Depot; in my mind, my location shouldn't matter. I just want to browse and potentially buy some products on my phone. I also worry that I will be shown higher pricing because of my location, even if I am purchasing online. I don't trust the app, but it requires me to submit my location, or I can't proceed. Needless to say, I opted to uninstall and browsed to their mobile website instead.

The Home Depot mobile site is better, but it keeps prompting me to download the app (thanks but no thanks). While I'm glad that the Home Depot mobile site meets my needs, it's frustrating to have to browse there when I know an app exists. For heavy Home Depot shoppers, this can mean they either compromise and enter their zip code anyway or just buy less often from Home Depot due to the extra effort of getting access on mobile. Either way, Home Depot loses out on brand goodwill and sales; frustrated customers may find that they phase out their Home Depot shopping over time, and they may be more likely to check Lowe's or Amazon first – all because of a product decision that wasn't fully considered. And while these sales losses won't ruin Home Depot, for a smaller, newer product like yours, a mistake like this could mean the difference between success and failure.



Home Depot's mobile app requires a location for online shopping.



The Home Depot mobile site is better than the app but still disrupts a regular shopping process.

In all of these examples, one thing stands out: Intentional, well-rounded consideration makes for better, more successful design. And that's good news for you, because while there's no foolproof way to guarantee success, you can stack the deck in your favor with solid planning before you start building. This book contains some concrete actions that you can take to set yourself on the path to success, all without ever writing a line of code. We'll cover the following topics:

BUSINESS STRATEGY	To determine whether your product is going to succeed, you need to understand what your overall business strategy is, and then use that strategy to inform decisions about your product.
PROJECT PLANNING	Each set of features, goals, or changes is a project, or a concrete set of end points that the product team will work toward in a finite time period. Organizing your projects will save you from distractions and keep you focused on the end goal.
RESEARCH	Now that you know what you want to do and what your business needs, it's time to understand your different audiences through research.
PERSONAS	Gathering data on your audience isn't enough. You need to put that data into a useful, helpful format (personas) to keep your team honest and help you make smart design and workflow decisions.
BRANDING	Who are you going to be? Branding is all about perception, so it's important to build your brand intentionally rather than letting it happen by chance.
CONTENT	The words, images, icons, videos, language, and graphics you use need just as much consideration as the workflows and design of your product.

INFORMATION ARCHITECTURE (IA)	Answer the following questions: How do you structure a new product or website? What flows make sense? How should you organize your navigation? What should you include (or exclude)?
WIREFRAMES	Put it all together by sketching out some wireframes. No design knowledge needed – just grab a Sharpie and some blank paper.
USABILITY TESTING	How do you know if your decisions are the right ones? Test them with real or potential users.
ANALYTICS	Track patterns and measure your results with the hard numbers of your business.
RESULTS	The jury is in; you have feedback and data! Now it's time to analyze, prioritize, and make some changes.

So turn the page, and start on your path to planned success!

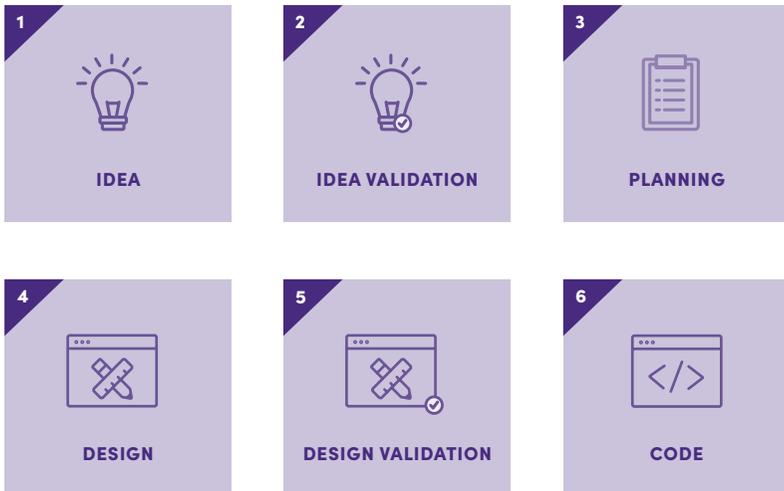
How to Use This Book and Workbook

With a title like *Before You Code*, you may be wondering, “Do I need to do everything in this book before I start development of my product?”

Honestly, no. And that’s not our intention. We wrote this book because in our experience, the process of creating a new product or feature looks something like this:



When it should really look more like this:



The best products, those that have repeatable, predictable success are ones that have a thorough process of research, validation and design supporting them. And that’s what this book offers – the detailed pieces of the process that set you and your product up for success.

With that in mind, recognize where you are in your product journey and the overall process. We've tagged each chapter with the part of the process it focuses on, so you can know easily find the sections you need. After all, if you're adding a new feature to an existing product where a lot of upfront validation and research has already been done, that's very different than if you're just creating your product from scratch; you'll have more to do in the latter case, since it is all new.

It's also important to understand your org and your role within it. Are you part of a larger company or corporation? Are you the CEO or founder of a start-up? Are you a consultant who works with clients at various stages of their products? For this book we've mainly focused on startup founders' experiences creating a new product, though the methods and processes in this book can work for any of the above roles with some adaptation.

To that end, we've designed a workbook, with activities, essential takeaways, and key actions for each section – the workbook will help you take the principles of the chapter and apply it to your product, no matter your role or organization. It will also keep you on track for how all the pieces fit together, as many chapters build on each other. This way you and your team have a comprehensive document you can reference and update as your product is created and evolves.

Also remember that while we wrote this book in AN order, it's not THE order. That means you can do the activities for each chapter concurrently or out of written order. For example, some teams may want to start designing and coding WHILE validating an idea, because it's at a refinement stage. As long as you leave space for adjustments from that idea validation, you can do all your design validation after coding the whole thing or a prototype. The processes in this book aren't hard rules; they're guidelines of what to think about before and beyond coding out your next big thing and they have the flexibility to adjust to your process and needs.

So read this book and take smarter action – you'll have more success, and a better product.