Digital Product Management

Design websites and mobile apps that exceed expectations

Kristofer Layon

Foreword by Whitney Hess

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New Riders
VOICES THAT MATTER™

DIGITAL PRODUCT MANAGEMENT
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New Riders
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DEDICATION

For the faculty, the staff, and my classmates in the Department of Design, Housing, and Apparel at the University of Minnesota, where I completed my master's degree in interactive design ten years ago. Thanks for all of the knowledge and, more importantly, the desire and skills to continue learning in the rapidly changing world of digital product design.

Acknowledgements

This is my third time writing a book, and I am just as awestruck and humbled by the process as I was the first two times. And I'm just as indebted to the many fantastic people who make it all possible.

These include Michael Nolan, Margaret Anderson, Glenn Bisignani, Gretchen Dykstra, Charlene Will, Maureen Forys, Aren Straiger, and Jack Lewis. Plus others behind the scenes with whom I did not work directly, but I know helped craft my ideas, words, and sketches into the form that you see here.

Special thanks to Adam Turman, who made this book come alive with his illustrations. Soon after deciding to write it, I knew I had to partner with Adam to help this book be engaging and human centered. So if you find this book to be delightful, it is due to Adam's wonderful graphic contributions.

Also, kudos and thanks to Erin Newkirk and Dan Wick at Red Stamp. Their passion for solving customer problems with new and creative solutions is without peer, and has made their vision for web and mobile products very successful. I'm honored to work with them and to help take the company's product management and UX design efforts to the next level.

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Finally, thank you to my wife and daughters, who are the most patient and supportive people in my life. Katie, Sarah, Grace, Emma, and Anne: There's no way I can adequately thank you in words for all of the love and joy that you provide.

Foreword

It was 2008 and Garrett Camp's arm was tired. The entrepreneur had spent way too much time trying to hail a cab on the streets of San Francisco. His big idea was to start a limo time-share service. Who wouldn't want to show up to an appointment in style?

Camp saw a clear problem and set out to solve it with a mobile app that lets you order a car anywhere, anytime. Today it's a billion-dollar, multinational business called Uber. Don't know exactly where you are? Your phone's GPS will tell you. Don't have enough cash? Pay and tip automatically with your saved credit card. Don't want to spend the money on a limo? Uber now offers traditional cabs and hybrids at lower rates. Uncomfortable about getting in the car with a stranger? Check the driver's rating before accepting the ride—you'll be required to rate him afterward, and he'll rate you too, improving the experience for everyone.

An Uber driver recently told me that his marriage had been saved by working for the company ("Now I make my own hours, drive a beautiful car, and don't

worry about who's getting in my back seat"). Several drivers credit Uber for increasing their earnings by 30 percent.

A great product solves a problem for the buyer and the seller. It might start with a wild idea, but over time it can revolutionize an entire industry and change people's behavior forever.

A great product makes you faster, smarter, stronger, cleaner, or superior in some way. It lets you bring 5,000 of your favorite songs with you everywhere you go, track the exact speed and distance of your morning run, or read an audience's inner thoughts about whatever the conference presenter just said. It helps you quickly shred a block of cheese, perfectly divide an apple into eight equal slices, or remove stains with a magic pen.

Take a moment to look around and count the number of products you use on a daily basis. I stopped counting at 50. Inventions you simply can't live without are everywhere: the living room, the office, the bathroom, the boardroom. All of these places contain the brilliance and hard work of someone who thought something could be done better.

For as long as humans have existed, we've been filling our surroundings with tangible products. Over the last decade, we've been filling our pockets and purses with virtual ones. But one thing is true whether these products are physical or digital: they occupy space. And space is finite. That means every time you decide to bring a new product into your life, you're making the space unavailable for something else.

Consider it: You're as unlikely to put two lamps on your nightstand as you are to wear two activity trackers on your wrist. Products force you to make decisions about what you want, what you need, and what you're willing to spend (in time, money, and effort). You make a sophisticated cost-benefit

analysis whenever you consider something new, and many times again for as long as you choose to keep it.

As someone who makes products, your goal is to make the decision to buy and use your creations easy and obvious. And regardless of the industry, form, culture, target audience, or price point, one universal factor will determine your success: purpose.

Purpose is the *why,* the reason something exists, the problem that your product is trying to solve. It's the intended use, the intended benefit, and the intended significance all wrapped into one. Purpose is value—its worthiness to be owned and used. Without intrinsic value, how can you expect your products to stand the test of time?

Product management is the art and science of crafting a product with purpose. It combines the creativity of design with the analytics of business. It crystalizes goals, defines strategy, prioritizes features, focuses design, coordinates development, optimizes testing, and expedites time to market.

So how do you find your purpose? How do you ensure that your products will have value? By not guessing. Wait, isn't all product management a bit of guesswork? That's how a lot of organizations run, but it doesn't have to be that way. The teams behind the most beloved products, physical and digital, share one dominant quality: empathy.

Empathy is the ability to feel the feelings of someone else. Putting yourself in someone else's shoes lets you see the world from her point of view: what she wants, what she needs, what she's willing to spend to make her life better. Developing empathy for your customer lets you create a product she can't live without, not just the product you feel like making.

From Benjamin Franklin to Steve Jobs, the process has always been the same, and so have the blood, sweat, and tears. Know your purpose, understand your customer, and solve the tough problems to make a better world.

Whitney Hess
User Experience Coach, Vicarious Partners
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September 25, 2013

Introduction

As a designer or developer of web or mobile projects, you know the drill pretty well already. You know what I mean—the established, well-intentioned best practices that you make sure to follow as you design, develop, and launch a new site or app:

- Is it accessible?
- Does it comply with the client's branding and design guidelines?
- Does it look great and provide a simple and delightful user experience?
- Was the writing guided by good web or mobile content strategy?
- Is the CSS, HTML, JavaScript, or other code modern and standards compliant?
- If it's a website, is the design adaptive for supporting multiple screen sizes?
- Has the site or app passed a usability test?

- Is analytic code in the right places for tracking user behavior?
- Is there social media integration and a strategy to ensure that people will easily find and engage with the site or app?
- Are there launch and maintenance plans so that the site or app goes live on time and won't quickly "go stale" after it's released?

These ten points and more should be pretty familiar. They're the subjects of many outstanding books and conference sessions, and, for goodness sakes, you can always get better at doing them, right?

Yet there's a problem: Even if you do all this well, it doesn't ensure success. There's often a significant gap between creative and technical success and true organizational success. This gap is filled by product management.

WHAT IS PRODUCT MANAGEMENT?

In today's landscape of increasingly rapid web and app development cycles, it's not enough to focus solely on project-level attributes for determining success.

In fact, it was never really enough. Success metrics for projects don't completely translate into success metrics for organizations and businesses, for one simple reason:

Most organizations are not in the business of operating websites and apps.

So what do most organizations and businesses do? What are they good at? What do they care about? That's pretty simple, too:

Organizations are in the business of selling products.

Now you might argue that not all organizations are in the business of selling products—I'll cover that in more detail in Chapter 1, "What Is a Product?" But in short, I'll disagree with you here and briefly state that all organizations and businesses sell *something*. Actually, the entire purpose of running any organization or business is selling a product. You just need a broader definition of what selling means and what products really are. Once you have that understanding, it all begins to make sense.

So what does this mean for you as a designer or developer? What it means is that you need to broaden your measures of success. You need to add more criteria to your list that go beyond user interface design, best practices in coding, content strategy, social media strategy, and everything else that designers and developers love to think about, talk about, and implement.

Websites and mobile apps need product management criteria, too. These additional criteria are much more specific to individual organizations and products, but should look something like this:

- What is your website or mobile app designed to enable customers to accomplish? In other words, are the goals clearly understood and articulated?
- Do those goals involve delivering content, or do they also involve enabling transactions?
- How will you verify that delivery and transactions are happening successfully?
- Who in the organization is interested in knowing the data about delivery and transactions?
- How will you communicate the data to them, and how often?

- How do you know that they are the right people to care about customer behavior? Do others in the organization need to know too?
- What are the measures of success for the delivery or transactions?
- Do the project's designers and developers understand these measures of success?
- Does the organization's leadership understand the creative and technical options for achieving that success?
- Who's managing all of this when everyone is already really busy with their design, development, and management work?

IS PRODUCT MANAGEMENT FOR ME?

You might be thinking that attaching a whole bunch of additional success criteria to your website or mobile app is a bunch of extra work, and that you don't have time for more work. Or maybe you're not a product manager, so you might assume that this extra work falls under that big category of "That Must Be Someone Else's Job."

This book isn't so much about who is or isn't a product manager, and therefore it doesn't focus as much on job descriptions per se (though I do provide a sample job description in Chapter 8, "Getting It Done"), but rather on product management as a category of responsibilities. What's far more important, and what this book spends more time covering, is what product management means to organizations and to design and development teams. My intention is to describe *product* as another way to think about your work that isn't really

"extra" at all, but integral to what organizations and teams must be aware of to achieve success.

So is product management for you? Yes it is. Product management will help you be more successful whether you're a designer, a developer, a project manager, a content strategist, or a businessperson. The reason is both complex and simple at the same time: because product management is where design, development, and business are intimately connected. It is where the circles in a Venn diagram overlap—the most important and critical place where creative, technical, and business people need to collaborate and understand one another.

Does this mean that your organization or agency needs a product manager? Perhaps—but again, this book isn't about staffing. Those decisions are up to organizations and agencies. But regardless of whether a single person is assigned to product management work or not, the work is there to be done. This book explains what that work is and how you will know when product management is being done successfully.

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CHAPTER 4

Analyzing and Prioritizing Enhancements

Chapter 3 explained how to write user stories about new product features or ways to enhance existing products. If your product team spends time doing this and accumulates a list of user stories for enhancing a product, you'll end up with a backlog of ideas.

Defining a bunch of issues to solve begets yet another problem: How do you decide what to work on? Unless you're in a very unusual situation, you have limited time and budget. There are only so many hours in a day, and only so many people to work on design and development.

Of course, one of the most difficult things in life is prioritizing. It's just a universal problem, isn't it? If you haven't done this well, it seems you're always making excuses and apologizing.

"Sorry, I don't have time!"

"I'd love to help you with that, but I just don't think I'll be able to."

"Argh, I'm too busy!"

"What do you mean I need to get that done by next week? I'm already booked up! THERE'S NO WAY I'M GETTING THAT DONE BY NEXT WEEK!"

While you can't add days to the week, you can learn to manage your time more effectively. This chapter will help you think about priorities that make sense and then set up a structure that will enable you to stick to them.

Once you have a structure and prioritization habits that you can trust, there will be fewer apologies. And if you do still have to apologize occasionally for not getting everything done, you'll have clear reasons to give for why other tasks took priority, and this will hopefully cause less anguish and stress. You'll be more confident in setting and meeting user story priorities, and letting other things fall to the wayside or deferring them until later.

So let's see what this looks like! We'll focus on two frameworks for analyzing priorities: Maslow's hierarchy of human needs and the Kano Model.

MASLOW'S HIERARCHY OF HUMAN NEEDS

Abraham Maslow (1908–1970) was an American psychologist (**Figure 4.1**). In 1943, he wrote an article for a professional journal, *Psychological Review,* called "A Theory of Human Motivation." I remember first learning about Maslow and his theory in college, thinking that a hierarchy of needs seemed quite logical. And after getting into product management work, I think it's an even more powerful idea. So let's spend some time going over his theory and how it applies to product work.

FIGURE 4.1 Psychologist Abraham Maslow was best known for his theory about the hierarchy of human needs.

What first interested me about Maslow's work was the fact that his research centered on healthy people rather than sick people. I found this inspiring and uplifting, because in popular culture we seem to encounter more examples of the opposite: psychology and its medical counterpart, psychiatry, as sciences that deal with human mental disorders and how to manage or "cure" them.

Maslow's career itself represents a way of working that creative and technical people should learn from. His theories and research were not just extensions of ideas and work of colleagues whom he agreed with. Rather, Maslow questioned the status quo of psychology and developed alternate understandings of how people work and why they do what they do.

Sound familiar? It's kind of the basis of product management: seeking a greater understanding of people and then aligning your work with that understanding, rather than going with generally accepted practices and broad, industry-wide understandings. The best creative and technical solutions are the result of asking hard questions, digging deeply, and finding new answers that can lead to new ideas—answers for specific, real customers, not just answers that align with general trends that may or may not align with your specific market.

Maslow's work provides a useful way to think about how people function and, especially, what distinguishes humans from other species. Essentially, what makes humans unique is our capacity for self-determination and our ability to work through priorities. Humans make choices about a lot of things, and Maslow believes there's a system or hierarchy to how we make these choices.

Understanding this hierarchy can help you better meet people's expectations with your products.

Here are the five levels of human needs that Maslow identified (**Figure 4.2**):

1. **Physiological needs:** Our basic needs include respiration, food, water, rest, getting rid of waste, and reproduction. Without these basics, we can't survive as individuals, nor could we carry on as a species.

2. **Safety needs:** These needs include bodily security, moral security, and mental security. If you're hungry and have food, you'll eat and take care of that immediate need. But then how do you get more food for tomorrow? Your next meal becomes a bodily security issue.

3. **Social needs:** These needs are about emotional stability and happiness. They include friendship, family, and intimacy.

4. **Esteem needs:** These needs involve broader external acceptance that leads to greater self-esteem and confidence. You might be well fed, know where your next meal is coming from, and feel happy and loved. But until you're secure and confident in your education and employment, for example, your happiness is limited to a fairly small sphere of existence. Esteem gives you the confidence to live outside your comfort zone.

5. **Self-actualizing needs:** These high-level needs—such as morality, creativity, and problem solving—are what distinguish us from other species. Some people succeed in these areas more than others, and because of this we have a broader spectrum of humanity: good people, bad people, people with vision who can make the world better, and people who are shortsighted and selfish.

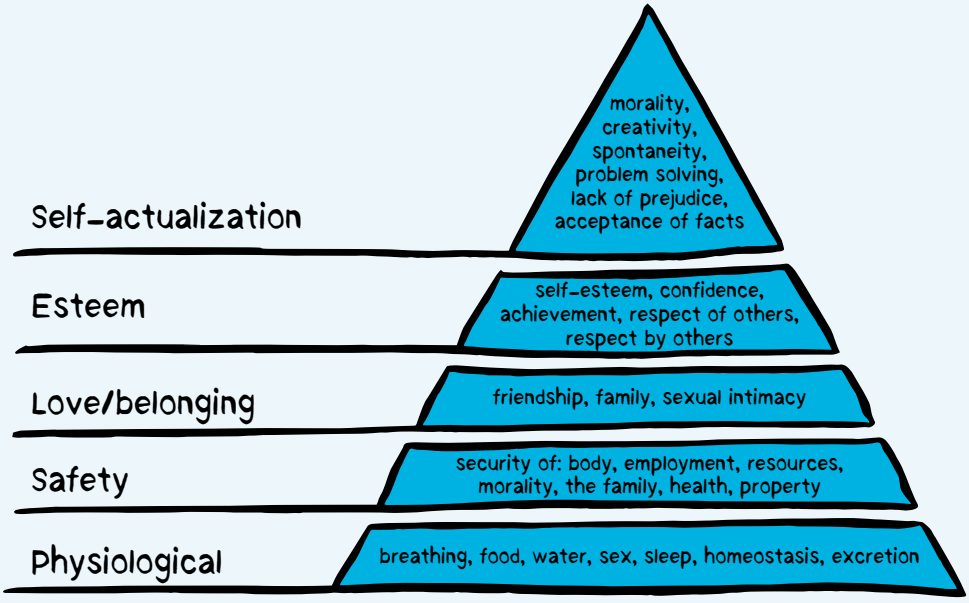

FIGURE 4.2 Maslow's hierarchy of human needs. Basic needs—those essential for survival—are at the bottom. Higher-level needs are at the top.

You have to meet the needs at the lowest level before you can advance to the higher levels. It's hard to satisfy broader security concerns if you're not breathing, eating, and otherwise healthy!

There's a lot of analysis we could get into at this point. For example, why do good people sometimes do bad things? I think Maslow's theory actually speaks to this. Most of us would never steal from others in a normal situation, because we have enough security in our lives to know where we'll be getting the things we need to survive from day to day. But seeing this hierarchy of needs explains why good people could be forced to steal if their circumstances were bad enough. This is why looting sometimes happens in times of war or civil unrest: The normal order of things is upset, and people can devolve a bit in order to survive.

How Maslow's hierarchy of needs applies to product design and development, however, is where it gets really interesting for us.

Product-level hierarchies

Consider how digital products dovetail with Maslow's hierarchy of needs. For example, why is Google one of the most-visited websites in the world? The hierarchy of human needs tells us why: Google can help us meet many of our needs, even fundamental ones. We use it to find food, to get answers to our health care questions, and to buy diapers.

We even use sites like Match.com to help us find lifelong partners with whom, should it interest us, we can start a family!

So it's little wonder that Google and other search engines have become ubiquitous in the developed world. People would be pretty lost these days without them, especially on their mobile devices. Sure, there are tons of apps out

there, and we frequently download new ones, but often we'll give them a try once or twice then stop using them because they fail to meet our fundamental needs. But have you ever heard of anyone saying, "Yeah, I got tired of some of my apps and got rid of a few, and I decided to give up using search this time. Who needs it?"

Uh, no. No one has ever said that. Ever.

After search, online banking websites and mobile apps are probably among the most-used digital products. Why? Because they help us meet our safety needs—they enable us to get paid and, in turn, to pay the bills for goods and services that keep us safe, secure, and comfortable.

Think about where your current websites or mobile apps fit into Maslow's hierarchy of needs. Do they support the base of the pyramid, a higher but less critical level of needs, or a range of needs? Knowing this should help you set expectations for use and satisfaction.

Similarly, if you're assessing a new product opportunity for a client or trying to discern what kind of site or app to design on your own, determine what type of needs it could meet. Could it satisfy fundamental needs or higher-level needs? Could it be used by a broad range of users or just a niche?

Attribute-level hierarchies

There's a more nuanced way to look at hierarchies of needs: looking at specific product attributes, features, or capabilities. What does this type of analysis look like?

After Maslow's theory caught my attention and I saw how relevant it was to product management in general, I started thinking about how I could modify it specifically for online products. What are the online equivalents of our physiological, safety, social, esteem, and self-actualizing needs?

I came up with my own version of Maslow's hierarchy, applying it to mobile user experiences (**Figure 4.3**):

1. **Physiological needs:** When making the web work on a mobile device, the physiological equivalent of breathing and eating is seeing and navigating. In other words, nothing else really matters until you can see it and go from one part of it to another. These are the most basic aspects of online content.

2. **Safety needs:** These needs are related to repeated or sustained activity. Eating is great, but where's your next meal coming from? Seeing and navigating is one thing, but reading is another. Reading is a deeper, more sustained activity that involves the most pervasive form of online content: text. Seeing text is a good start, but having it sized, scaled, and formatted in a way that makes it clearly legible is even better.

3. **Social needs:** These needs include engagement with content through responding and sharing. Not surprisingly, the web excels at both with elements like forms and social media. As you prioritize web optimization for mobile, solve visibility first, readability next, and then make sure that people are able to respond and share with mobile-friendly forms and social media connections.

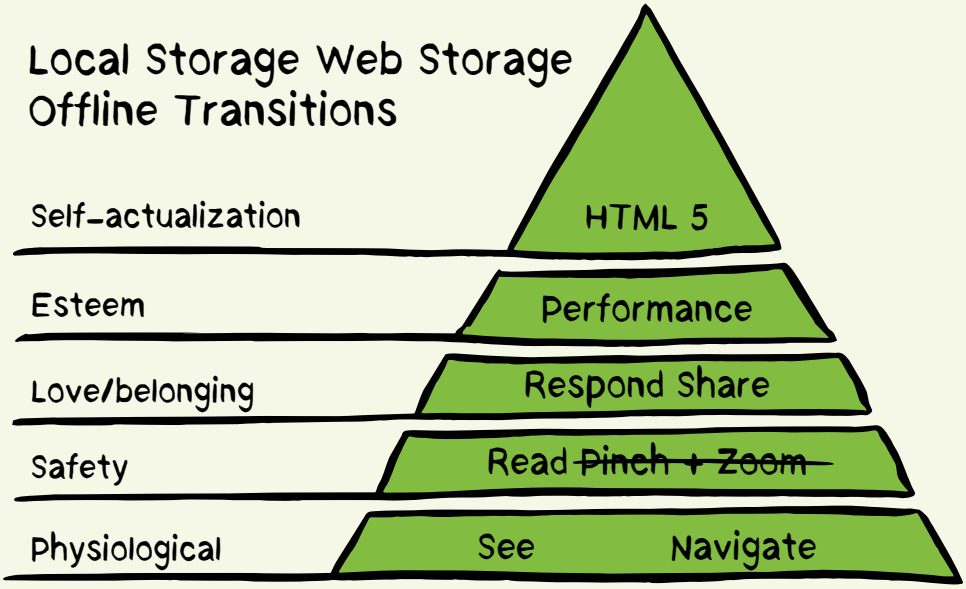

FIGURE 4.3 My theory of mobile motivation. Like Maslow's hierarchy of human needs, it illustrates that there are basic needs to meet in mobile user experience before higher needs can be met. This isn't specific to mobile user experience; people accessing content and interactions in desktop or tablet browsers have the same needs.

4. **Esteem needs:** On the web, one of the best sources of confidence and trust is performance. How many of us have experienced a site or service that is designed well but plagued by downtime or sluggish performance? (Remember Twitter's infamous "fail whale"?) It can be very discouraging to see a site with a great, practical design, but then be let down by the service being sporadic or unavailable. It not only cheapens the site, it makes you feel unimportant as well. And this feeling isn't trivial; if a reliable website or app can empower you to do something better or faster, it should come as no surprise that something you can't trust can make you feel powerless and insignificant.

5. **Self-actualizing needs:** The final tier of needs for digital products can be summed up with one word: joy. And for a great example of this, we need look no further than the first iPhone. Phone calls, texting, maps, e-mail, cameras, and the web already existed, of course, but the iPhone combined them in one device in a truly elegant and pain-free way. Apple later added an app store to enable people to design nearly anything else that they wished. In short, the iPhone created joy—not a fleeting, giddy feeling of happiness, but rather an enduring level of product satisfaction that has made it the best-selling phone (and camera) ever.

I like how this hierarchy of web and mobile needs works out. And my friend Brad Frost liked it, too. He boiled it down into the simple diagram shown in **Figure 4.4**.

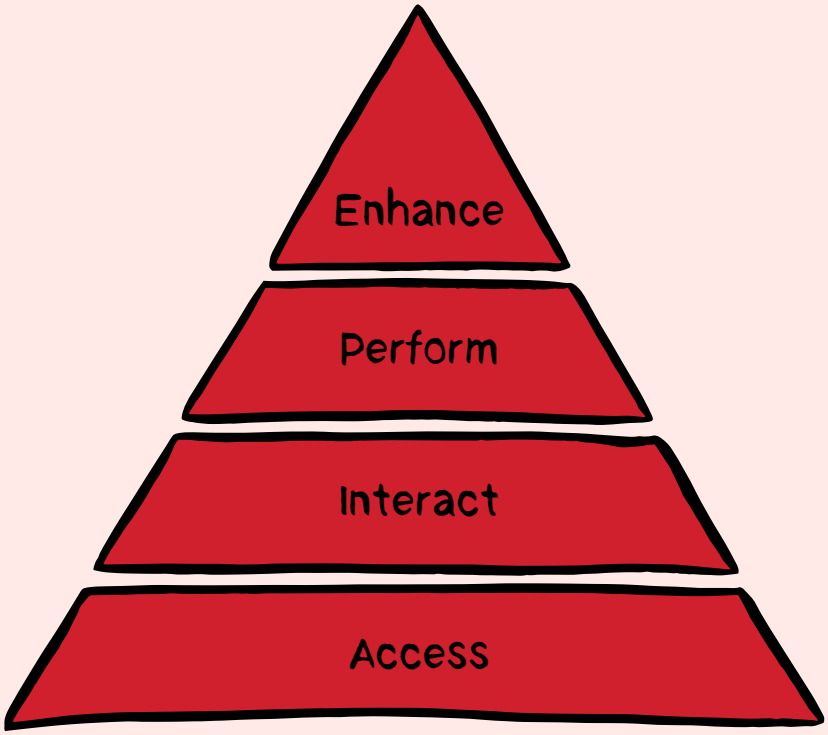

FIGURE 4.4 Brad Frost's diagram of mobile needs: access, interact, perform, enhance.

The importance of support

For me, the worst product experience—no matter what type of product or service it is—is not having a simple way to contact the company for support or to complain. Acknowledging customers as people means giving them a means to communicate with you, confirming that their messages are received, and responding to their inquiries.

Don't underestimate the importance of providing a customer support channel for your website or mobile app, even if it's just an e-mail address. And if it's an e-mail address, be sure to check the in-box regularly and write back to the people who contact you, even if it's just to thank them for reaching out. You'll earn their trust and increase their satisfaction, even if your initial reply doesn't solve their problem.

What I like most about his interpretation is that it shows that the hierarchy is flexible. And that's kind of the point. As long as your priorities are based on customer needs and market problems, your approach to websites and mobile apps can vary slightly. Just make sure that you're careful when you prioritize, and structure the needs in a way that enables you to meet essential ones first, then others later.

This brings us to the Kano Model, a systematic way to think about any product attribute and place it in proper perspective.

THE KANO MODEL

The Kano Model is named after Noriaki Kano (born 1940), an educator and writer who taught for several decades at the Tokyo University of Science (**Figure 4.5**). He spent much of his career in the 1970s and 1980s developing and fine-tuning an approach to analyzing customer satisfaction. The essence of his approach is that all product attributes are not equal to customers, and therefore improving each product attribute doesn't necessarily result in higher customer satisfaction.[1]

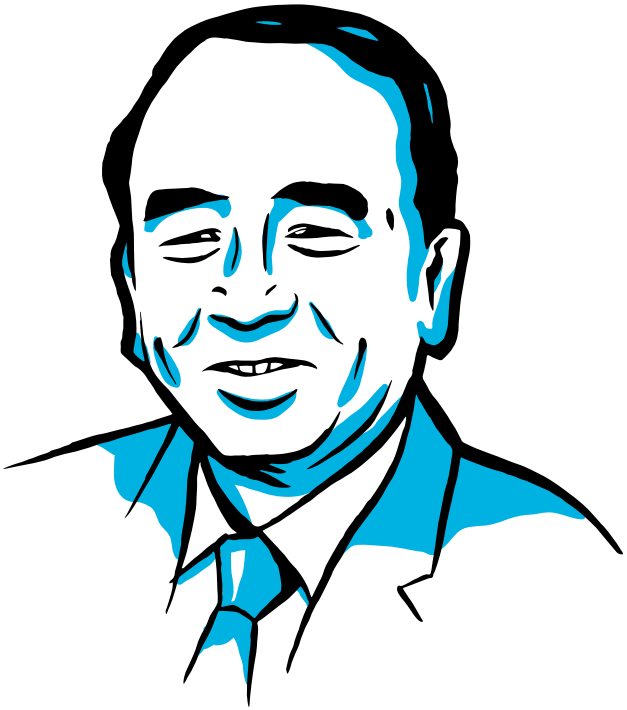

FIGURE 4.5 Noriaki Kano, a researcher and educator in the field of quality management, developed a model of customer satisfaction that uses concepts similar to Maslow's hierarchy of human needs. But his model articulates them even more specifically to the work of managing products and customer satisfaction.

Well, that can't be right! Why wouldn't improving something result in more satisfaction? Better is better, right?

Not exactly. And Kano's model of analyzing product attributes explains why. It's similar to Maslow's hierarchy of human needs, but instead of five levels, it has three broader categories of product attributes: basic, performance, and delightful.

Basic attributes

Basic attributes are exactly what they sound like: basic, assumed, fundamental. They're absolutely essential to the product. If a basic attribute is missing, the product doesn't work. Basic attributes are usually pretty easy to confirm in physical products. For example, if a flashlight didn't have a switch, it would be impossible to turn it on or off. Therefore, a switch is a basic product attribute of a flashlight.

Performance attributes

Performance attributes are less binary than basic ones, and therefore can be delivered across a range of performance or effectiveness. A switch on a flashlight is either there or it's not—you can't *kind of* have a switch. Furthermore, even when it's there, a flashlight switch doesn't have much room for improvement. It's going to turn something on or off regardless, as long as it's functional.

But a performance attribute of a flashlight is the brightness of the lightbulb. A strong bulb could result in higher customer satisfaction, whereas a dim bulb could result in lower customer satisfaction. There's a range of brightness associated with lightbulbs.

Delightful attributes

These attributes, sometimes called excitement attributes, are not as broadly anticipated or assumed by customers. And they're definitely not a core expectation. With a flashlight, a delightful attribute could be the color or material of the handle, or even something as subtle as the texture of the grip that you hold on to. Such details aren't absolutely essential, as the flashlight is designed to shed light on things. But the right color flashlight, or one that's easier to hold on to, could be more delightful to use.

So these are the three product attribute categories of the Kano Model. But we're just getting started. It gets more interesting!

Different attributes, different results

The Kano Model category names themselves provide some clues to understanding them. Let's look at a few corollaries to the Kano Model.

Missing basic attributes are a product's biggest problem, but delivering them results in low satisfaction

This doesn't seem very fair, but it's true. Consider a car, the industry that Kano originally based much of his theory on. There are hundreds of different cars that are designed and manufactured by different automotive companies, but they all share some product attributes, one of them being a steering wheel (**Figure 4.6**). All cars have them. So do trucks and minivans. It doesn't matter what the body type or passenger capacity is, all cars have steering wheels. They're a basic product attribute of a car.

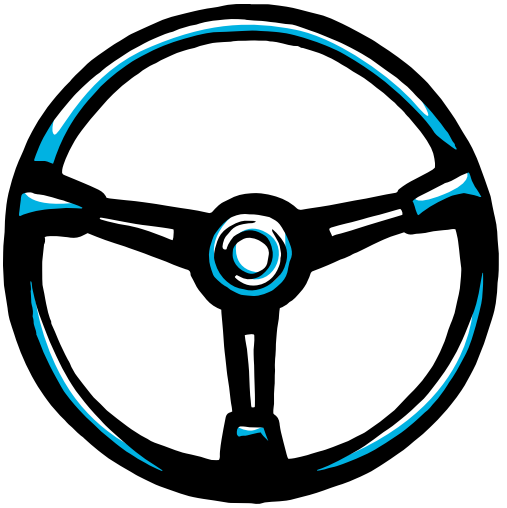

FIGURE 4.6 A steering wheel is expected and necessary for a car to work, so it's a basic Kano product attribute.

Without a steering wheel, the car is incomplete.

What's interesting, though, is that providing a steering wheel in your car doesn't garner you much praise, if any at all. Customers just aren't going to pat you on the back and say, "Awesome feature! I love the steering wheel!" No. While a steering wheel is necessary, providing it doesn't result in high product satisfaction. It only results in adequate satisfaction.

But leaving the steering wheel out of the product does quite the opposite. It results in very low product satisfaction. A missing basic expectation means that you haven't just underperformed, you've failed. Selling a car without a steering wheel is indeed failure. The car won't work and isn't safe without a steering wheel. It's an incomplete product.

Performance attributes are often customer specific

The most important thing to recognize about performance attributes is that they're not nearly as universal as basic attributes. A missing steering wheel is a missing steering wheel—there's just not much to debate there, no matter who the customer is. So the universality of a product attribute can be a clue as to whether it is basic and expected.

Performance can be in the eye of the beholder. What kind of performance? There can be several kinds!

Going back to the automobile example, consider a common measure of performance for cars: speed. If speed is your measure of performance, it might lead you to buy a sports car, one that goes from 0 to 60 mph in just a few seconds and has the agility you need to zip around those other cars with much more sluggish performance (sounds kind of fun, doesn't it?).

But this definition of performance isn't necessarily for everyone, at least when it comes to purchasing a new car. You might like a fast car, but depending on who you are and what you can afford, you might not actually buy one.

So consider alternative interpretations of performance, such as fuel efficiency (**Figure 4.7**). It's somewhat the opposite of a sports car, which favors speed over fuel efficiency. But for many people who are more conscious of expenses and environmental impacts, owning a car with the best fuel efficiency is the measure of great performance. For them, getting more miles per gallon of gas is another way of defining high performance.

FIGURE 4.7 Fuel economy is something with a linear range of performance, from low to high, making it a performance Kano product attribute.

Additionally, how about seats or cargo space? If you're the parent of multiple children, you're probably not looking to buy a sports car. And you may be less interested in fuel economy than a single person who has the luxury of maximizing fuel efficiency by driving a really tiny car. To you, performance may have another definition: How many of your children and their friends can fit in the vehicle? And how much of their gear can it haul? Or how many bags of groceries can it carry?

Delivering performance or delightful attributes doesn't compensate for missing basic attributes

Think again about a car without a steering wheel, an example of an incomplete product. If you're the product manager for this car, you could have your engineering team vastly improve the fuel efficiency. Or fine-tune the design of the interior to increase the amount of room for passengers or cargo. You could even sell a version with a convertible roof (**Figure 4.8**). That would be especially delightful, right?

But with this example, it's easy to see that improving the car's performance or adding delightful attributes won't make up for missing a basic feature. A car with great fuel economy and a convertible roof won't do you much good if it has no steering wheel. A nonfunctional car is a nonfunctional car, regardless of the additional features it might have.

When prioritizing enhancements on a digital product, make sure that you never diminish the importance of a missing or flawed basic feature. And never make the mistake of thinking that enhancing another area of the site or app will make it easier for customers to accept the missing or flawed feature. Unfortunately, I've heard that argument all too often: "Well, we can't really address that problem right now… but doing this other enhancement should help in the meantime, and give them something else to be happy about."

That's not how it works.

If a basic feature is missing or broken, it's missing or broken. Don't think you can distract customers with a bunch of other improvements. You'll just squander their goodwill and reduce product satisfaction. If you roll out an enhancement that doesn't resolve another, more pressing issue, customers won't be any happier. And any positive reaction to the new enhancement won't be nearly as strong later, either.

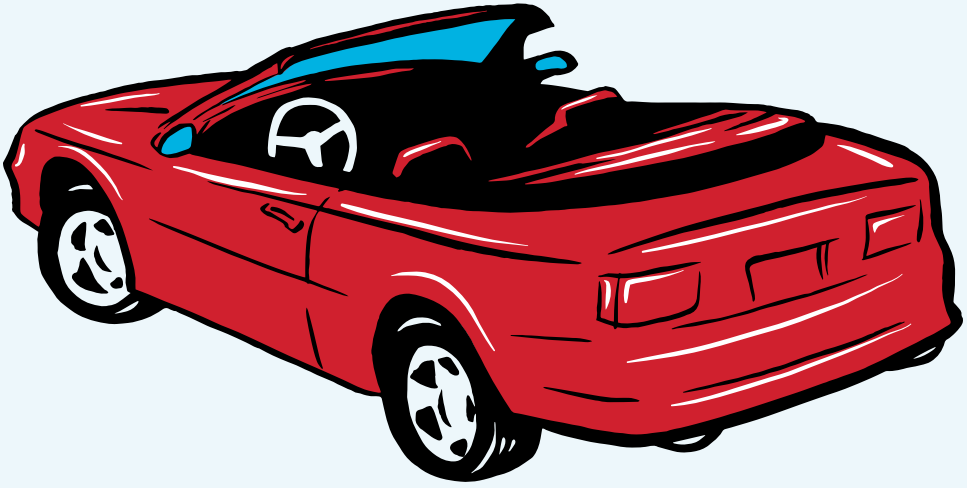

FIGURE 4.8 A convertible roof on a car isn't essential, nor does it enhance the car's performance. It's an option that can make driving the car really fun in sunny weather, so it's a delightful Kano product attribute.

Performance and delightful enhancements are effective only when the context is an otherwise complete product. Poorly timed releases of performance and delightful features are at risk not only for not increasing product satisfaction, but also for deepening customers' doubt in your product and its ongoing management and development.

Today's performance or delightful feature can quickly become tomorrow's basic feature

One of the biggest challenges with digital products is customers' rapidly changing expectations. Consider how quickly expectations evolved after the introduction of the iPhone in 2007. Certainly, mobile phone owners' expectations didn't shift immediately; after all, even today many people haven't upgraded to a smartphone of one kind or another. But when people do, the flexibility and usefulness of the device can really get them hooked.

Just this week, I saw some interesting changed expectations in action as they relate to smartphones. As I'm writing this, it is the last week of May 2013. Yahoo just announced a new, updated design of its Flickr photo service. It's really nice, so it got a lot of positive reviews and press.

But in the midst of the positive attention was a significant amount of backlash and criticism, too. Why? The Flickr redesign didn't include an updated mobile-optimized version of the site. And given how influential apps like Instagram have been, and even Twitter with its inline photo display, an updated Flickr design that impacts only desktop users seems rather quaint and less significant than it would have been in the past. And for people who browse the web primarily on their smartphones, the updated Flickr is not just a nonissue, it's also a bit insulting.

Clearly, expectations for digital photo sites have changed rapidly due to widespread smartphone adoption and competition from sites like Instagram. So don't rest on your laurels: Don't assume that because you have a popular digital product today, you'll have continued smooth sailing tomorrow. Expectations for your website or mobile app will change. It's just a matter of when.

Will you be paying attention, doing industry research, and staying in touch with your customers to know when it happens?

Visualizing Kano attributes

Let's take a look at a standard Kano product attribute graph, which makes it a bit easier to see how different product attributes relate to one another (**Figure 4.9**).

As you can see, the red line depicting basic features does just what was described earlier. When a basic feature is delivered, the line plateaus slightly above zero on the y-axis of customer satisfaction to indicate that this generates feelings of adequacy, not hearty pats on the back.

But also note how steeply the red curve dives to deep dissatisfaction when delivery of basic attributes doesn't happen and execution is poor. Poor execution of an expected feature results in very harsh feelings: anger, frustration, sadness. People can feel very strongly about a broken product. Don't let that happen with your digital product.

The green line, representing performance attributes, is linear. That's because poor delivery results in less satisfaction, and good delivery results in higher satisfaction. It's easiest and most predictable to improve performance of a site or app however you can, whether it's speed, ease of use, or some other measure. Any attribute that offers a range of options or examples can fall into this category.

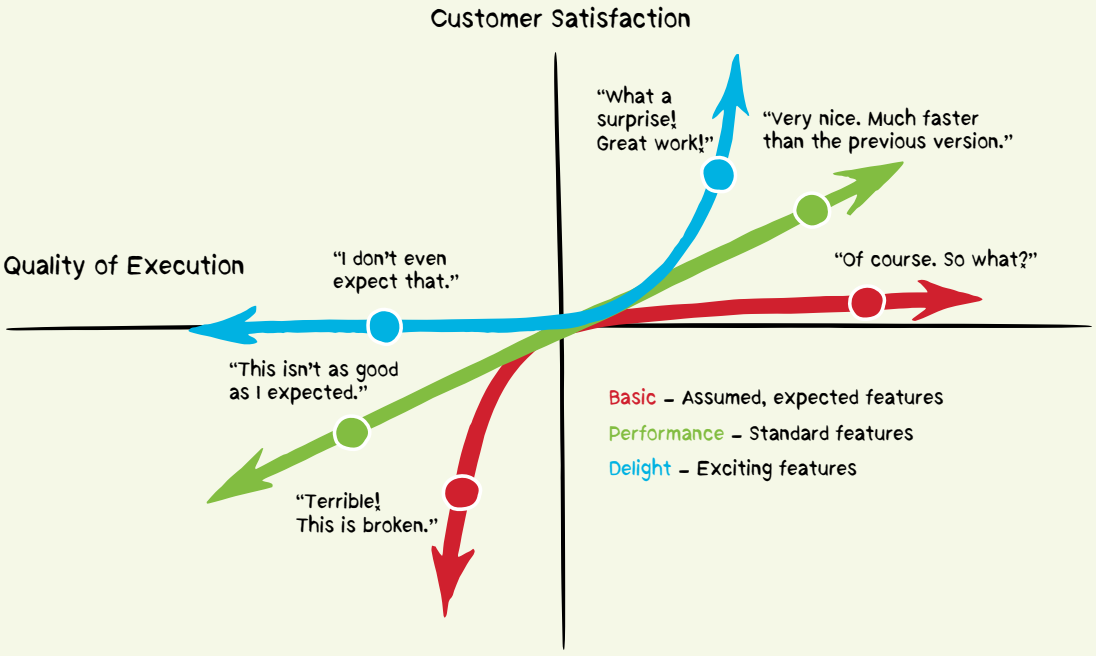

FIGURE 4.9 As shown in the Kano Model, customer satisfaction and dissatisfaction vary greatly depending on the quality of basic, performance, or delightful features. Understanding these differences and relationships is key to successfully influencing customer satisfaction with product management decisions.

Determining Kano attributes

Analyzing a car to determine that a steering wheel is basic, fuel economy is performance, and a convertible roof is delightful is pretty straightforward. But what about determining Kano attribute types for a new or enhanced product where you're not yet certain which features would be considered basic, performance, or delightful by your customers?

In their book *Universal Methods of Design*, Bella Martin and Bruce Hanington explain that you can ask two questions of your customers, and their answers to these questions can help you categorize features according to the Kano Model.[2] First, ask how they would feel if your site or app had the feature in question: satisfied, neutral, or dissatisfied. Then, ask how they would feel if that feature were not there: satisfied, neutral, or dissatisfied.

Here's how their responses map to Kano product attributes:

Basic: The customer would be neutral about the feature being there, but very dissatisfied if it were missing.

Performance: The customer would be satisfied if the feature were there, but dissatisfied if it were missing.

Delightful: The customer would be satisfied if the feature were there, but neutral if it were missing.

Remember that if you're verifying a performance feature, having a follow-up conversation about how well or how much of a feature is there and having that map to less or more satisfaction (versus a more binary response) also confirms that it's a performance feature.

Finally, the blue line charts the range of customer reactions to delightful attributes. Because they are unexpected, a missing or poorly executed delightful feature does not usually result in poor customer satisfaction. Customers either aren't expecting it or won't feel terrible if it's there but not perfect. It's an extra, so not a big deal.

But a very well-executed, delightful feature can take your product into the highest stratosphere of customer satisfaction. So the blue graph goes the highest on the y-axis and is essentially the reverse trend of a basic attribute graph.

Charting your product attributes, whether existing or planned, can help you see whether you're focusing on the right user stories at the right time. If you have an expected attribute that's faring poorly in customer satisfaction, don't let yourself get distracted by performance or delightful attributes. Use this graph with team members, executives, or clients to help make this message clearer.

SUMMARY

Chapter 4 explained how to analyze and prioritize product attributes. The most important things to remember are the following:

- Maslow's hierarchy of human needs helps you understand what people need the most and how meeting needs is progressive.
- Maslow's hierarchy of human needs can help you set priorities for digital products. For example, people need to access (see and navigate) content and services above all. Next in importance is readability, followed by the ability to interact, and then performance and other enhancements.
- The Kano Model uses three categories to analyze customer satisfaction: basic, performance, and delightful.
- Delivering basic product attributes doesn't earn you accolades, but not delivering them results in severe customer dissatisfaction.
- Performance attributes are linear: The better (or more) you deliver, the higher customer satisfaction is.
- Delightful attributes are the opposite of expected ones. Not delivering them doesn't result in much customer dissatisfaction (because the attributes are not expected), but delivering them can surprise and delight customers, which can result in high satisfaction.
- Don't neglect basic attributes in favor of performance or delightful ones. No performance or delightful feature will make up for a missing basic attribute.
- Expectations can change rapidly: Today's delightful feature can be tomorrow's performance feature and next year's basic feature.

REFERENCES

1. Martin, Bella, and Bruce Hanington. 2012. *Universal Methods of Design,* 106. Rockport Publishers.

2. Martin and Hanington, 107.

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