

Principles of Designing
& Releasing Web Products

An abstract geometric design consisting of numerous thin white lines that radiate from a central point and connect to the vertices of several overlapping, tilted squares. This creates a complex, web-like pattern that serves as a background for the main title.

product design for the web

Randy J. Hunt
Creative Director, Etsy

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*For Mom and Dad.
You always trusted that I'd figure things out.*

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Introduction

“People think that design is styling. Design is not style. It’s not about giving shape to the shell and not giving a damn about the guts. Good design is a renaissance attitude that combines technology, cognitive science, human need, and beauty to produce something that the world didn’t know it was missing.”

—PAOLA ANTONELLI, MOMA’S SENIOR CURATOR
OF ARCHITECTURE & DESIGN + DIRECTOR OF R&D

In January of 2010, I stepped into a job I’d never had before, in a situation I’d never been in before. It had been years since I’d done anything other than work for myself and at businesses I’d started. The job was Interaction Designer for Etsy, the global marketplace for unique goods. The situation? Well, at the time, Etsy was a 50-person company.

Etsy was started in 2005. In 2009, it had sold \$180 million worth of merchandise. Some people considered it a design-centric brand, but to say the design team was small would be an understatement. As a platform that enables artists and designers to sell

INTRODUCTION

the physical products they've created, Etsy doesn't employ or need physical product designers. As a software product, it does need Web product designers. As the New Year began, there were zero Web designers on staff. My first week at Etsy was also the first week for the only other Web designer on the team. We had our work cut out for us. As time would pass, I'd learn just how my experience up to that point would help me figure out how to approach design at Etsy. For the time being, however, everything felt new.

There wasn't much of what you'd call "hallway conversation" because we didn't really have hallways. Still, I would pick up on conversations about this mysterious thing called the "product."

WHAT IS "PRODUCT"?

Our CEO at the time, Etsy's founder, was a "product guy." Designers, along with "product managers," were on the "product team." I honestly had no idea what "product" meant, and I was tasked with growing it! I'd been building another Web product for three years before joining Etsy, and had always called the process "building a website," or if I was talking to a savvy person, I'd say I was "building a Web application."

Over time, through lots of question-asking, frequent guessing (and getting it wrong), and absorbing, I arrived at an understanding of what "product" meant. The "product" was this thing we were building: the Web application, mobile apps, and the API (application programming interface). Many people hear "product" and think of a toothbrush or a toaster. At Etsy, the product was (and is) software.

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Moving forward, I was able to understand the relationship between “design” and “product.” I started referring to the team as the “product design team” because every other moniker seemed as ill-fitting as a cheap suit. Etsy is all about being one-of-a-kind, so we arrived at a bespoke answer for a unique situation. Or so we thought.

It turns out that our answer wasn’t unique at all. Other software companies had been referring to “product design” as a discipline for quite some time. As many startups and other companies began developing software products, I realized that we needed a common language for our big, shared, and influential discipline. Web products have a fundamental impact on the day-to-day lives of billions of people.

Through trial and error, I came to an understanding of what product design is and how it works. I wrote this book because I wanted to define product design and share that understanding. More important, though, I wanted to share what I believe are fundamental principles of product design. What does it take to build and release a Web product?

After reading this book, you’ll have a much more complete understanding of what’s involved in designing digital products, how that design process works, and how to do it well.

Anyone working in the field of product design, Web design, online media, entrepreneurship, software development, or management and leadership will find value in what follows.

I hope you enjoy learning about the principles of product design as much as I enjoyed discovering them.

No Dead Ends

From the earliest days of the Internet, we saw everything presented there as a “page.” Of course, that terminology springs from the printed page that everyone knew so well. The problem with applying this familiar concept to Web product design is that digital products aren’t experienced in a single linear sequence, one static rectangle at a time.

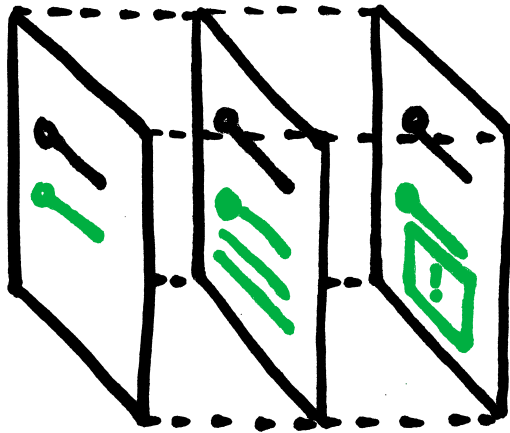
Even today, without realizing it, we often accept an ill-fitting framework for Web products. If we pin our design to an out-of-date model, we’re unlikely to create an experience that feels consistent with the medium for which we’re designing.

Every experience that people have with digital products involves interactions over time, choices between multiple actions, user feedback, presentation of information, requirements for input, and demands on attention. It’s important for us to consider exactly what we are creating when we design a digital product: how it is experienced, how it is constructed, how it works, and the connection between those three factors.

Go With the Flow

Let's accept a new model for our thinking: instead of a page, we design a *flow*, a word that implies a looseness of movement and, perhaps, an unpredictable pathway. Think of how water moves in a stream. It may run to the right or to the left of a rock. It may move faster in narrow areas or slower in wide areas. In some locations it may move so slowly that you can't perceive its movement. Eventually, it reaches a natural destination, its inevitable home, at the bottom of the hill.

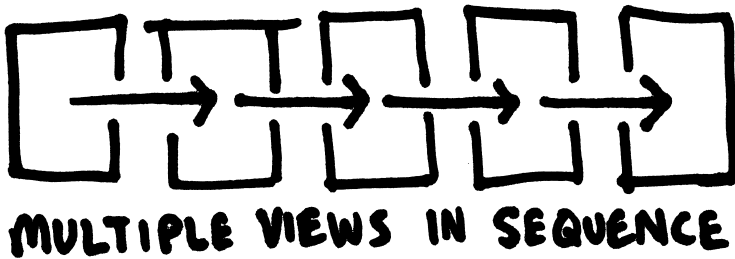
ONE VIEW



MULTIPLE STATES

NO DEAD ENDS

Flow as a model also implies the passage of time. Movement doesn't happen in a single moment. As we learned in our story framework in Chapter 3, an experience has a beginning, a middle, and an end. People don't experience a digital product in a single instant. People pass in and out of the flow, with each interaction leading to a new part of the experience. If the creator has done his job correctly, flow should ideally go on and on and on, offering more and different experiences over time.



The elements that can appear or occur within a flow aren't limited to its presence on a specific medium, device, or screen. A person may interact with the flow through an app or online shopping site, but she is also interacting when she tells her friend about her experience or sees a printed ad in a favorite magazine. Each interaction helps that person understand what the product looks and feels like, how to use it, and whom it is for. Each of those moments is part of a larger flow that easily moves from online interaction to offline activity and back. A flow has the potential to go in a variety of directions, change its pacing, and be subject to manipulation

and multiple interpretations. Knowing this, a designer can thoughtfully and creatively craft an experience that never reaches a dead end. A dead end is a missed opportunity.

Create New Opportunities

Finding moments to extend flows demands broader thinking. In fact, it demands that you embrace uncertainty and accept that you will not really know where your flow should go next. Often, the next possible destination for a flow will reveal itself only as you're actually developing the product from your design.

Take a simple sign-up flow that has reached its natural resting place: a completed user sign-up. Where you take that user will depend on what part of the experience you want him to engage with immediately after signing up. You might offer multiple possibilities. You might prefer that he perform Action A if he arrived at the sign-up from Source A, or that he have a choice of Actions B or C if he arrived from Source B.

When you are refining a part of a product experience design, you must always be looking for opportunities to extend its flow. A user should never experience steps one, two, and three successfully, and then get to step four and discover that the flow ends with "Have a nice day; see you later."

For example, a customer at a shopping site has just placed an order. The natural product flow would seem to be complete and concluded. What was expected was fulfilled. Now what? Ideally, that flow should have the opportunity to continue. But how might

NO DEAD ENDS

that work? Your product could present other items that this person might be interested in. It could display links to articles about the item the customer just purchased. It could direct the customer to a community of like-minded people. The possibilities are as wide as your mind is open.

When you're dealing with an unpredictable flow, the key to finding new opportunities is simply to open up to the entire world of possibilities. You could present information, ask for input, or prompt interaction. What kind of interaction? You could solicit feedback by asking a person to share her experience, or you could offer the customer a choice of several possible next steps. By presenting those possibilities, you can encourage the customer's next action in any number of ways.

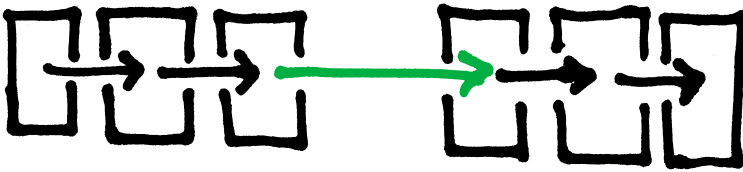
Once you start to see the breadth of potential options, you can take the design of your product in almost any direction.

Connect One Experience to Another

We know that focus and continuity of outcome are important to the design of a strong product experience. But if you have limitless possibilities for the direction of any one flow, how do you generate focus by choosing a subset of those “limitless possibilities”? The previous checkout-to-recommendation scenario is a good example. If you're looking to turn a dead end into a not-dead not-end, consider connecting it to other key flows—those essential flows that make up the core of your product and already exist in the experience.

THINK LIKE A PRODUCT DESIGNER

Think about filling a glass to the very top with water. Just at the point when the glass will overflow, you put another glass below it to catch the water, then fill that glass, and then fill another and another. That's what your flow should be like. How can you continually extend the experience so that it remains beneficial for you and the customer?



Some digital experiences do have logical ends. After you sign up for a new service by creating a personal account, that job is done. When you buy an item online and check out, that transaction is finished. Water has finished flowing into the glass. Its path has reached its natural conclusion.

However, you should start to look at these natural conclusions simply as touch points in the ongoing flow. Grab another glass, and start a new flow to pour into the next natural conclusion.

What if the glass has water in it but isn't completely filled? As mentioned above, you could direct someone who just made a purchase to other products or information. Ask what else you could offer at that point to fill and overflow the glass. How could connecting one experience to another enhance the experience, making it more valuable by combining experiences? You could offer to send a mobile update when the customer's order ships, or provide

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a discount for a future purchase, or send tips on how to better use the purchased item.

All of these options extend the flow. The flow's timeline has been extended by connecting multiple experiences. In so doing, you keep that person in the flow even when she is not actively involved with your product. It adds value for the user and value to your product.

Flows Can Be Long

If we understand that a flow is a set of experiences that people have over time while interacting with your product, we should recognize that “over time” can mean a very long time, indeed. The length, breadth, and depth of an experience are also variables that we can design for. Typically, we tend to think of digital products enabling “fast” or “instant” results, and it is all too common to wrap things up quickly. But what if the experience was slow? What if you could not only design the “now” part of the experience, but also shape future experiences that the person will have while using your product?

If you are creating a shopping experience, for example, the flow may begin with a very quick checkout. But that person now has a relationship with your product, along with an opinion about it. You could come back to him after a week, a month, or a year to get additional feedback. Was the product he purchased durable? How is he using it? You can capture a lot of valuable information over time.

Also consider that you are working on a product that lets people start an experience now that might conclude in the future.

THINK LIKE A PRODUCT DESIGNER

Those events could happen now or a decade from now. The user experience can become very long. You have to think differently about how you would create that flow so you don't accidentally create a dead end later.

For instance, I might choose very different tools if I'm planning on accommodating an experience that can unfold over a long period of time. I might choose a very simple technology that seems to be stable and has been around for a long time, rather than take a risk with the newest, unproven technology. I might set up the product with a proven technology for its infrastructure, giving it a better chance of being serviceable and able to easily evolve many years from now.

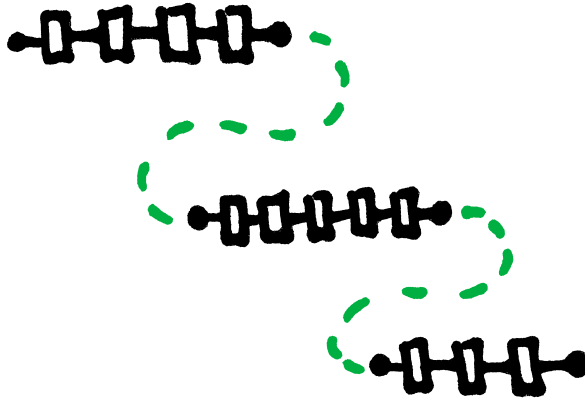
The important thing is to open up your thinking for everything that might happen between now and the end of what could be a very long experience.

Connect the Dots

Sometimes as you work you will see the connection points between parts of the product experience, and sometimes they will not appear for a long time. The design process is always one of discovery. When we design a product for the Web, discovery is an important part of how we determine what the product actually is. When you reach the end of a flow—the edge of the product—imagine a dot, a connection point. Now it's time to discover another dot, and so on. There are no ends, only new opportunities to explore. Once you have connected a series of dots, you have a flow without an

NO DEAD ENDS

end. You can design an experience to connect the end point of one key as to another.



When you've identified which dots to connect, you need to guide the person across that connection point. It's up to the designer to help the user to understand, "What am I going to get out of this?" Why should the user continue on?

There has to be a reason for that person to continue with the experience. Whether it's informative, useful, or just plain fun, the ongoing path you create makes it more likely that the user will stay with you on the journey through your product.

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