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SAMPLE CHAPTER

DESIGN FOR THE MIND

SEVEN PSYCHOLOGICAL PRINCIPLES OF PERSUASIVE DESIGN



Design for the Mind

SEVEN PSYCHOLOGICAL PRINCIPLES OF PERSUASIVE DESIGN

by Victor S. Yocco

Sample Chapter 1

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Part 1

Introducing the application of psychology to design

What is psychology? How can you apply psychology to design? What principles of psychology will you learn about in this book? Isn't persuasion a bad word, or even a dark art? What does it look like to design without consideration of users' psychology? I'll answer each of these questions in part 1. You'll learn what principles the book will cover, and why I chose these specific principles. I'll discuss *why* you should read this book, and *how* you should read it. I'll offer a comparison of a digital product designed without taking into account user psychology and one that was designed with user psychology in mind. I'll explain the difference between the type of persuasion I promote and the commonly frowned upon dark pattern and bait-and-switch type of persuasion that people often think of when they hear the word *persuasion*. Finally, I'll provide a cheat sheet to help you decide whether to read the book from cover to cover, or immediately go to the principles that are most relevant to your product.

Meeting users' needs: including psychology in design

This chapter covers

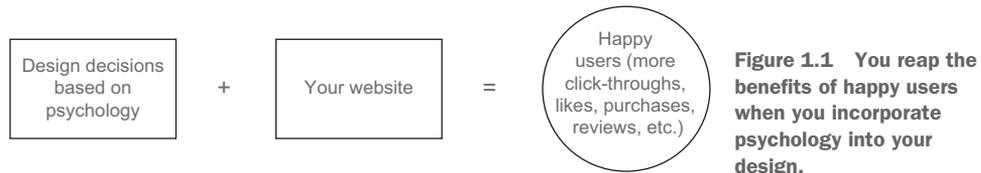
- Why you should read this book
- Knowledge and skills you'll gain
- Effective UX design using psychological principles

If I told you that after you invest a few hours of your time you can learn things that will enhance the rest of your design career, you'd probably demand that I tell you how, right now. That's the purpose of this book. This book focuses on *psychology*, the study of the mental processes that lead to human behavior, and how you can apply it to design. Good design reflects users' psychology as a way of meeting their needs. As a product designer, you want to understand psychological principles so that you can adapt your product to new technologies or social contexts without relearning concrete design patterns. Whether you want to tweak an existing website to make it more intuitive or build a digital experience aligned with how users make decisions, this book is the tool for you. You'll learn principles of psychology that allow your design to

- Create or change user behavior
- Account for users making quick decisions
- Present users with a call to action at the right time

- Shape users' positive attitudes toward your design
- Incorporate social elements and interactions to influence users
- Persuade users to engage deeper with your product
- Communicate meaningfully with users about your design

Ultimately, you'll create happier users when you account for principles of psychology in your design (figure 1.1).



1.1 Principles included in this book

This book covers seven commonly accepted principles of psychology:

- Planned behavior
- Prospect theory and heuristics
- Fogg's behavior model
- Influence
- Social influence
- Framing communication
- Persuasion

I've broken the principles into two sections.

1.1.1 Design to create and change behaviors

This section covers three principles explaining how to create usable designs that encourage users and their peers to successfully engage with your product. This includes simple user behaviors such as reading or posting a message, as well as more complex behaviors such as making a purchase or using your product to manage their finances. These topics are covered in part 2:

- *Chapter 2, "Designing for regular use: addressing planned behavior"*—This chapter shows how to make users want to engage with your product to meet their needs.
- *Chapter 3, "Risky decisions and mental shortcuts"*—This chapter examines how you can design to reduce users' mental effort, making you the go-to product for these users.
- *Chapter 4, "Motivation, ability, and trigger—boom!"*—This chapter looks at how and when to present users with the opportunity to use your product.

1.1.2 Design for influence and persuasion

Sometimes users need that extra push to use your product. This section covers four principles explaining how individuals are persuaded and influenced. These principles,

covered in part 3, involve elements of design that change or reinforce users' attitudes toward your product:

- Chapter 5, *"Influence: getting people to like and use your product"*—Influence helps promote use of your product by nonusers and increase use by current users.
- Chapter 6, *"Using family, friends, and social networks to influence users"*—Social influence determines how users decide to follow what others do, and how you can design to facilitate social experiences that will increase use of your product.
- Chapter 7, *"It's not what you say; it's how you say it!"*—Framing communication will allow you to deliver a powerful and effective message to motivate users to engage in specific behaviors.
- Chapter 8, *"Persuasion: The deadliest art"*—Principles of persuasion govern how users receive and pay attention to the information you present.

1.2 Criteria for inclusion in this book

You can apply many legitimate principles of psychology to design. I've filtered these to those principles that will quickly serve your needs as a member of a design team.

Each principle is

- Taught in graduate-level psychology courses
- Cited hundreds of times in academic literature
- Simple to understand
- Relevant to design

1.2.1 Taught in graduate school

Academics constantly subject psychological principles to scrutiny. Therefore, one important benchmark I used was that these principles are currently taught in graduate-level psychology courses at accredited universities. This means that these principles are valid for designing and conducting research.

1.2.2 Citations: a popularity contest

Citations are the most critical factor in the survival of a principle of psychology. Researchers continue to examine each principle covered in this book. I encourage you to look into the additional resources I provide at the end of each chapter.

1.2.3 Simplicity

Just as many designers think a simple design is more aesthetically pleasing and functional than an overly complicated one, the same holds true for principles of psychology. Simplicity is a hallmark of a good psychological principle.

1.2.4 Relevant to design

I explore the usefulness of each principle as applied to your work on a design team. I've read numerous books and dozens of articles on each principle I've included. I work on design teams to incorporate these principles into designs our clients and their users find useful and usable.

1.3 Why you should read this book

You'll quickly gain knowledge and skills to improve how your design addresses users' psychological characteristics and encourages increased use of your design. I'll discuss the effectiveness of including psychology in your design-related conversations with peers and clients. You'll learn how to address basic human behavior in your design. Your knowledge of what makes people tick will enable you to make design decisions leading to the outcomes you desire (more clicks, more likes, and more purchases).

1.3.1 You'll gain knowledge

You'll be able to make decisions backed by science once you've read this book. You'll have more than basic knowledge of how relevant psychological principles apply to digital design.

I make a number of recommendations for collecting data throughout the book. I also provide guidance on questions you should ask potential users. I believe this is necessary to empower you as a reader and to show real-life application of the concepts covered.

1.3.2 You'll learn how to think like your users

You'll understand what mental processes lead to the decisions people make. You can apply this knowledge to make sure your design meets the needs of your users, as well as identify areas where your design isn't meeting those needs. You can address these areas to improve the performance of your design. You'll understand where users might struggle with a design and how to address this issue.

1.3.3 You'll learn to communicate the needs of users

After reading this book, you'll be able to better contribute to design team discussions and processes. You'll learn principles of psychology that will allow you to discuss with your team, your clients, and your peers why your design is effective, or what needs to be done to create an effective design. You'll have the ability to do this from the perspective of a user.

This book will enable you to contribute more to, and better understand, the conversation on user research and your design.

1.4 What this book won't teach you

This isn't a research methods book. I won't teach you how to conduct research to make your design decisions. I advocate having trained researchers collect data. You'll obtain higher quality data and better recommendations from a trained researcher. If you aren't a trained researcher, you can benefit from knowing what types of questions researchers should ask and whom they should ask.

This book also doesn't

- Provide standardized visual design requirements; I still want you to be creative.
- Teach you dirty design tricks (such as dark patterns).
- Teach you to be a designer. I'm going to give you what you need to critically think about the application of principles of psychology to your design, but I won't show you how to design.
- Specify which principle of psychology is exactly right for your design (but I'll give you plenty to choose from; try them all).

1.5 Addressing psychology enhances usability

This book focuses on psychology, the study of the mental processes that lead to human attitudes and behavior. I've also mixed in a bit of behavioral economics and sociology. These social sciences seek to explain the how and why behind individual and group behavior. Good design accounts for the behavior and mental processes of users. The principles in this book will get people to use your product the way you intended and recommend it to others, and will increase use of your product.

1.5.1 What designing without psychology looks like

ECSI, a student loan servicing company, provides an example of a design that reflects no recognizable thought to human psychology. The ECSI portal dashboard (figure 1.2) page creates more questions than answers when users land on it. For example, why does ECSI provide four different payment links: credit card, e-check, direct, and international? Why doesn't it provide visual cues as to what users should do? Why does the portal have a navigation category dedicated to Other that has only one option? Why is there so much open space when ECSI crushes the links together as tightly as possible? Why doesn't the page state the user's name, account number, or balance once logged in? Why doesn't ECSI convey a sense of security to users? I feel confused and out of control on this site and I'm sure others do too.

You'll realize after reading this book that the site isn't accounting for psychology-backed usability issues, including

- Perceived control
- Immediate guidance
- Personalization
- Perceived security (third-party seals, antivirus status)
- Familiar layout for a customer portal (for example, informational dashboard landing)
- Persuasive elements of any type

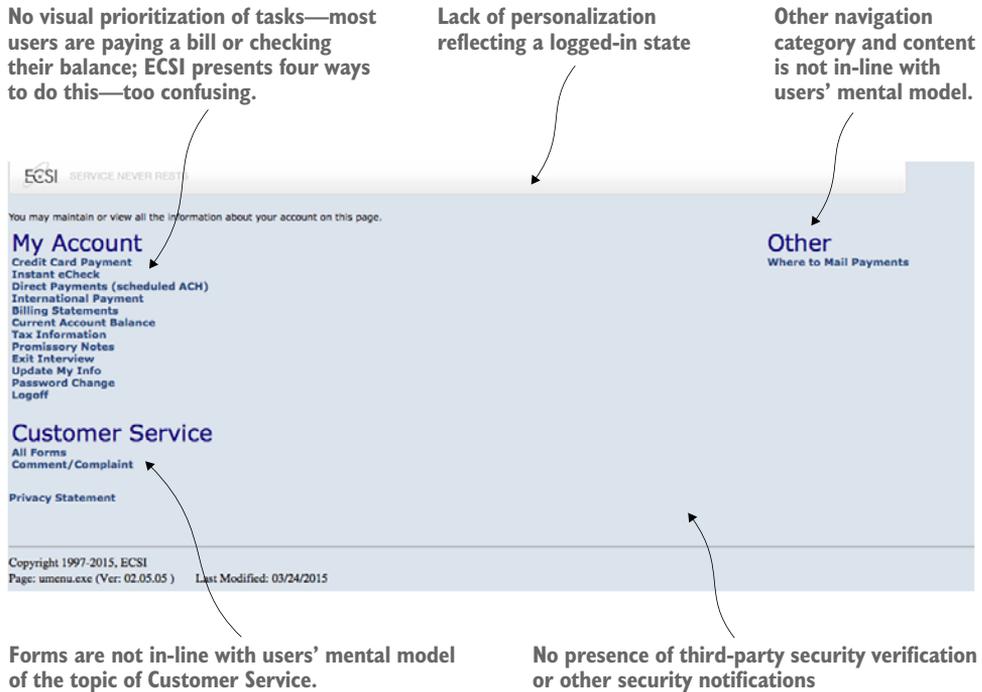


Figure 1.2 ECSI doesn't account for psychological principles of any type on the portal landing page.

1.5.2 What designing with psychology looks like

Aqua, my water provider, does a much better job acknowledging principles of psychology in its customer portal. The Aqua customer portal (figure 1.3) visually guides me to the most frequently used (and most important to Aqua) options of making a payment and setting up auto draft (not displayed, but it appears in the Payments navigation category). I feel in control thanks to the personalized greeting and clear navigation. I feel secure seeing the recent activity feed and third-party seal. I don't love paying any bill, but I don't mind paying my water bill or using Aqua's online portal to check my balance. I'll cover the importance of control, simplicity, personalization, and security as psychological principles in later chapters.

Both businesses offer a payment portal with nearly identical functionality. But users will view the ECSI portal as confusing, with poor workflows and no guidance on what tasks are located where, and lacking a logical layout. Users will view Aqua as a business that values their time and wants them to succeed in tasks related to managing their account. Aqua has done this through effective use of principles of psychology.

Digital experiences that fail to account for psychology aren't always as obvious as the ECSI portal. How can you avoid designing experiences like ECSI's? Psychological principles provide a map to guide your process. They help explain the what and why behind your design.

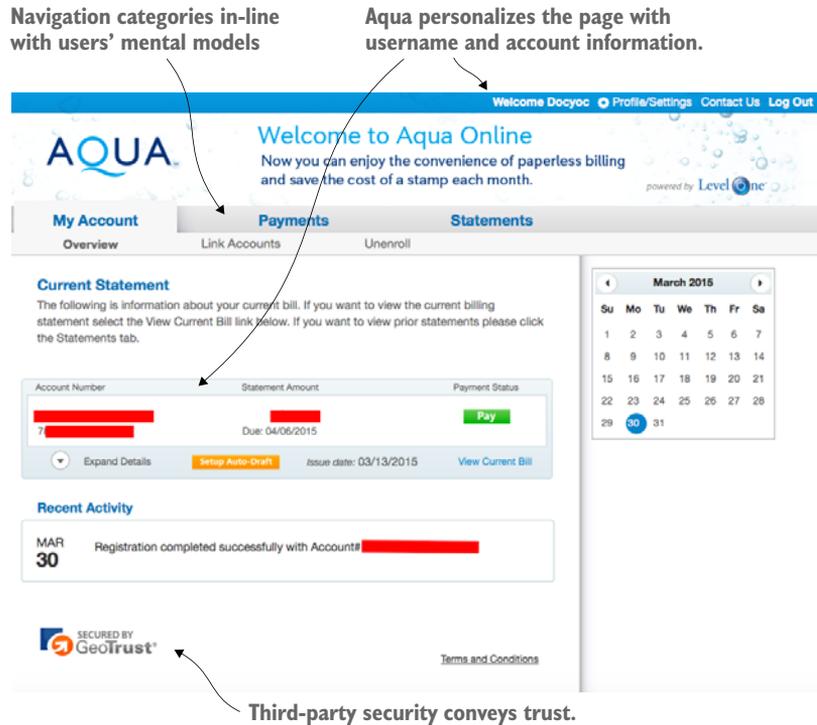


Figure 1.3 Aqua accounts for principles of psychology, making bill payment easy if not fun.

1.6 And now, a passionate word on persuasion

This book covers a number of principles focused on persuading users. I'm unabashedly pro persuasive design. I think persuasion has a bad rap—but I understand why. The word typically conjures up images of a smooth-talking salesperson, someone who doesn't have your best interests in mind. In design, this can mean trickery and deceit through dark patterns. I'm not writing a book about that kind of persuasion. I'm writing about making your experience persuasive by making it easy to use, by using psychology to improve your design, and by getting people to engage in behaviors they were already considering. I'm writing about being persuasive in the way that Amazon.com persuades users with recommendations, options, and a usable experience. I'm writing about being persuasive like Google, with targeted advertising, personalization, and an extensive lineup of useful free apps; persuasive like Apple, with simple, appealing design, future-focused functionality, and a cult following.

The truth about persuasion is much more benign.¹ Persuasion is part of our everyday lives, whether or not we acknowledge it. People need to be persuaded, not

¹ I stated in my July 2014 article on persuasion in *A List Apart*, "Utilizing dark patterns or tricking a user into doing something they wouldn't otherwise do is not persuasion. It's being an asshole." See <http://mng.bz/n6nK>.

because they're dumb or should be tricked, but because most people don't have the time to waste mental resources on making many of life's less complicated decisions. You also know that your competitors are actively trying to persuade users to try their product. In other words, if you don't try to persuade people, someone else gladly will.

Figure 1.4 is an example of what I consider dirty persuasion—the kind that gives everyday persuasion a bad name. This “article” lives as a paid sponsor link on a number of popular (assumedly reputable) mainstream news and weather websites. Notice some of the shady persuasive techniques used:

- The article is an advertisement masked as journalism—many readers won't notice the small and confusing word “advertorial” featured in the upper-right corner. Instead, the ad reads like breaking news, exposing the reader to an inside government secret on how they can get out of debt.
- Additional links, similarly attention-grabbing, yet likely false, tell the reader the “secret” of getting out of debt. I'm guessing that secret only comes after the reader completes a form and possibly provides a payment.
- Although the article suggests mortgage rates have gone down, they blind the rates, asking users to click Check Rates. I didn't want to find out what would happen to my computer if I did click the link.

I'm left assuming (possibly incorrectly) that this is a more modern version of bait and switch or postal fraud. The target audience seems to be the elderly or those still under the impression that “It must be true because the internet says so.” I'm disappointed sites like this exist and are able to advertise through (supposedly) reputable sites.

You'll learn much more about positive persuasion as you read this book. You get the point, and I'm done talking up persuasion.

Advertorial

The screenshot shows a website for 'onesmartpenny' with a navigation bar including HOME, MORTGAGE, DEBT RELIEF, INSURANCE, and CREDIT SCORE. The main article is titled 'The Home Refinance Plan Banks Don't Want You Knowing' and is dated September 29, 2015. The article text includes: 'When homeowners visit The Easy Loan Site's official website, they may be surprised to find out they qualify for a plan that offers them shockingly low interest rates. Still unknown to many, this brilliant government program called the Home Affordable Refinance Plan (HARP) could benefit millions of Americans and reduce their monthly payments by as much as \$4,264 each year.' It also mentions that homeowners have used HARP to eliminate up to 15 years of mortgage and that the program is set to expire in 2016. A sidebar on the right titled 'Recent Posts' contains three items: 'Little known way to pay off mortgage', 'The secret to defeating credit card debt', and 'Are you getting the most from your insurance?'. At the bottom right, there is a 'Refinance Now While rates are low!' widget with a 'Select loan' section containing radio buttons for '30 Year Fixed', '15 Year Fixed', and '5/1 ARM', each with a 'Check Rates' button. Below that is an 'Other Refinance Options' section with radio buttons for 'FHA', 'HARP', 'VA Mortgage', 'Cash Out Refi', '10 Year Fixed', and '3/1 ARM'.

Figure 1.4 This book is not about shady persuasion such as this example.

1.7 Talking the talk: conversations about psychology

When you understand principles of psychology, you enhance your ability to explain the underlying rationale of your design. But you need to do this without sounding pompous. Remember, most people won't be as well versed in these principles as you. I'll provide examples throughout the book of how you might subtly discuss each principle with clients, peers, or users. Your ability to effectively communicate these concepts will put you ahead of the competition.

Let's compare how two designers, Brainy and Dr. K., separately discuss with a potential client why incorporating social interactions into their design should be effective. Brainy doesn't know much about psychological principles related to design, whereas Dr. K became familiar with the components of social identity (covered in chapter 6) in preparation for the project.

Brainy: "Our design recommendations will focus on the act of liking. Everyone likes Facebook because they get to see what their friends are doing and if they like what they see, they press the Like button. So we are going to strategically place Like buttons all around your product so people can Like things too. It's going to be a real hit!"

Dr. K.: "Our design will allow your users to see what other users with similar interests are doing with your product. We know from psychological research that people look at what others are doing and compare themselves to those people. Your product now facilitates the creation of groups of like-minded users. They'll be able to see how others use your product, trade tips on using your product, and create a broader word-of-mouth effort around your product."

It should be obvious who impressed the client more. Dr. K clearly made a better attempt to inform her design beyond generic impressions from observing behavior on Facebook. You too can easily start to talk the talk of principles of psychology, without sounding condescending or obtuse (fun word).

1.8 Summary

- Principles of psychology are core to UX and user-focused design, so use them often.
- Principles of psychology serve to explain why and how people choose to engage in certain behaviors.
- Understanding the importance of principles of psychology will enhance your design and increase user happiness.
- Users will notice if your design ignores psychology; they won't use your product.
- You should proactively think about how each principle might apply to your design.
- Psychological principles provide a blueprint for your design—you can use part or all of a psychological principle and you can mix principles within your design to create the best product possible.

- Persuasion is *not* a dirty word; this book covers persuasive techniques meant to create a better user experience, not trick users into doing something they don't want to do.

1.9 **Cheat sheet**

Although I fully expect you'll read this book from cover to cover, I want to be respectful of your time. You can use the following questions to help guide you to the most appropriate principle for your product. You can choose to read the chapters I identify here first, and then cover the rest of the principles as you find the time:

- What are you trying to accomplish beyond usability?
 - All of the principles in this book cover this.
- Is your experience social?
 - Start with something from chapter 6 on social identity and social influence.
- Is your experience intimate or personal?
 - Start with chapter 5 on influence or chapter 8 on persuasion, complemented with framing from chapter 7.
- Are you designing for frequent behaviors such as personal banking or checking the weather forecast?
 - Start with chapter 2 on planned behavior and chapter 4 on presenting effective triggers.
- Are you designing for spontaneous behaviors such as eating out in an unfamiliar neighborhood, or signing up for a monthly newsletter while users are browsing your website for the first time?
 - Start with chapter 3 on risky decisions and chapter 4 on presenting effective triggers.
- Does your experience sell things?
 - Start with chapter 5 on influence and chapter 8 on persuasion.
- Does your experience promote a certain attitude toward a political or environmental issue?
 - Start with chapter 2 on planned behavior.
- Is your experience health or fitness related?
 - Start with chapter 2 on planned behavior, chapter 4 on presenting effective triggers, and chapter 7 on framing communication.

DESIGN FOR THE MIND

SEVEN PSYCHOLOGICAL PRINCIPLES OF PERSUASIVE DESIGN

VICTOR S. YOCCO



Designers and design team members need to think about more than just aesthetics. How do you handle short attention spans? How does your design encourage users to engage, browse, or buy? Fortunately, there are psychological principles that you can use in your design to anticipate and benefit from how humans think, behave, and react.

Design for the Mind *Seven Psychological Principles of Persuasive Design* teaches you to recognize how websites and applications can benefit from an awareness of our innate, natural responses as humans, and to apply the same principles to your own designs. This approachable book introduces the psychological principles, deconstructs each into easily digestible concepts, and then shows how you can apply them. The idea is to deepen your understanding of why people react in the ways they do. After reading the book, you'll be ready to make your work more psychologically friendly, engaging, and persuasive.

This book is for web and UX designers and developers as well as anyone involved in customer-facing digital products.

What's Inside

- Making design persuasive
- Encouraging visitors to take action
- Creating enduring messages
- Meeting the needs of both engaged and disengaged visitors
- Becoming a strategic influencer
- Applying theory, with case studies and real-world examples

Victor Yocco is a researcher who publishes and speaks on psychology, UX research, and design. He has a PhD from The Ohio State University.

To download their free eBook in PDF, ePub, and Kindle formats, owners of this book should visit manning.com/books/design-for-the-mind

“A fascinating insight into human nature that will inform your design process.”

—Dr Adrian Ward, Award Technical Consulting Ltd.

“A great book to quickly pick up the fundamentals of applied psychology related to product design.”

—Alvin Raj, Oracle

“Opens up a whole new set of tools to help designers and creators think about their work, laid out in a format that is itself well designed.”

—Jason Pike
The Swift Learner

“Most books teach you how to do design; this book dives into the principles that make good designs work.”

—Craig Smith, Unbound DNA



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