

PREFACE

Hello and welcome to the *fifth* edition of *Learning Web Design*!

I've been documenting web design and development in books like this one for decades, and it continues to fascinate me how the web landscape changes from edition to edition. This fifth edition is no exception! Not only is this version nearly 200 pages longer than the last one, but there are also some significant updates and additions worth noting.

First, some technologies and techniques that were brand new or even experimental in the last edition have become nicely settled in. HTML5 is the new normal, and CSS is moving ahead with its modular approach, allowing new technologies to emerge and be adopted one at a time. We've largely gotten our heads around designing for a seemingly infinite range of devices. Responsive Web Design is now the de facto approach to building sites. As a result, RWD has earned its own chapter in this edition (**Chapter 17, Responsive Web Design**). Where in the last edition we pondered and argued how to handle responsive image markup, in this edition, the new responsive image elements are standardized and well supported (**Chapter 7, Adding Images**). I think we're getting the hang of this mobile thing!

I've seen a lot of seismic shifts in web design over the years, and this time, Flexbox and Grid are fundamentally changing the way we approach design. Just as we saw CSS put table-based layouts and 1-pixel spacer GIFs out of their misery, Flexbox and Grid are finally poised to kick our old float-based layout hacks to the curb. It is nothing short of a revolution, and after 25 years, it's refreshing to have an honest-to-goodness solution for layout. This edition sports a new (and hefty!) chapter on proper page layout with Flexbox and Grid (**Chapter 16, CSS Layout with Flexbox and Grid**).

Although knowledge of HTML, CSS, and JavaScript is at the heart of web development, the discipline has been evolving, and frankly, becoming more

■ ONLINE RESOURCE

The Companion Website

Be sure to visit the companion website for this book at learningwebdesign.com.

It features materials for the exercises, downloadable articles, lists of links from the book, contact information, and more.

complicated. I would be shirking my duty if I didn't at least introduce you to some of the new tools of the trade—CSS processors, feature detection, the command line, task runners, and Git—in a new chapter on the modern web developer toolkit (**Chapter 20, Modern Web Development Tools**). Sure, it's more stuff to learn, but the benefit is a streamlined and more efficient workflow.

The biggest surprise to me personally was how much web *image* production has changed since the fourth edition. Other than the introduction of the PNG format, my graphics chapters have remained essentially unchanged for 20 years. Not so this time around! Our old standby, GIF, is on the brink of retirement, and PNG is the default thanks to its performance advantages and new tools that let even smaller 8-bit PNGs include multiple levels of transparency. But PNG will have to keep its eye on WebP, mentioned in this edition for the first time, which may give it a run for its money in terms of file size and capabilities. The biggest web graphics story, however, is the emergence of SVG (Scalable Vector Graphics). Thanks to widespread browser support (finally!), SVG went from a small “some day” section in the previous edition to an entire “go for it!” chapter in this one (**Chapter 25, SVG**).

As in the first four editions, this book addresses the specific needs and concerns of beginners of all backgrounds, including seasoned graphic designers, programmers looking to expand their skills, and anyone else wanting to learn how to make websites. I've done my best to put the experience of sitting in my beginner web design class into a book, with exercises and tests along the way, so you get hands-on experience and can check your progress.

Whether you are reading this book on your own or using it as a companion to a web design course, I hope it gives you a good head start and that you have fun in the process.

HOW THIS BOOK IS ORGANIZED

Learning Web Design, Fifth Edition, is divided into five parts, each dealing with an important aspect of web development.

Part I: Getting Started

Part I lays a foundation for everything that follows in the book. I start off with some important general information about the web design environment, including the various roles you might play, the technologies you might learn, and tools that are available to you. You'll get your feet wet right away with HTML and CSS and learn how the web and web pages generally work. I'll also introduce you to some Big Concepts that get you thinking in the same way that modern web designers think about their craft.

Part II: HTML for Structure

The chapters in **Part II** cover the nitty-gritty of every element and attribute available to give content semantic structure. We'll cover the markup for text, links, images, tables, forms, and embedded media.

Part III: CSS for Presentation

In the course of **Part III**, you'll go from learning the basics of Cascading Style Sheets for changing the presentation of text to creating multicolumn layouts and even adding time-based animation and interactivity to the page. It provides an introduction to Responsive Web Design, as well as the tools and techniques that are part of the modern developer's workflow.

Part IV: JavaScript for Behavior

Mat Marquis starts **Part IV** out with a rundown of JavaScript syntax so that you can tell a variable from a function. You'll get to know some ways that JavaScript is used (including DOM scripting) and existing JavaScript tools such as polyfills and libraries that let you put JavaScript to use quickly, even if you aren't quite ready to write your own code from scratch.

Part V: Web Images

Part V introduces the various image file formats that are appropriate for the web, provides strategies for choosing them as part of a responsive workflow, and describes how to optimize them to make their file size as small as possible. It also includes a chapter on SVG graphics, which offer great advantages for responsive and interaction design.

Part VI: Appendices

Part VI holds reference material such as test answers, lists of HTML global attributes and CSS Selectors, and a look at HTML5 and its history.

TYPOGRAPHICAL CONVENTIONS

Italic

Used to indicate filenames and directory names, as well as for emphasis.

Colored italic

Used to indicate URLs and email addresses.

Colored roman text

Used for special terms that are being defined.

Constant width

Used to indicate code examples and keyboard commands.

Colored constant width

Used for emphasis in code examples.

Constant width italic

Used to indicate placeholders for attribute and style sheet property values.

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Indicates that a line of code was broken in the text but should remain together on one line in use.

ACKNOWLEDGMENTS

Once again, many smart and lovely people had my back on this edition.

I want to say a special thanks to my two *amazing* tech reviewers. I am quite indebted to Erika J. Etemad (*fantasai*), who, as a member of the W3C CSS Working Group, helped me make this edition more accurate and up-to-date with standards than ever before. She was *tough*, but the results are worth it. Petter Dessne brought his computer science expertise as well as valuable perspective as a professor and a reader for whom English is a second language. His good humor and photos of his home in Sweden were appreciated as well!

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ABOUT THE AUTHOR

Jennifer Robbins began designing for the web in 1993 as the graphic designer for Global Network Navigator, the first commercial website. In addition to this book, she has written multiple editions of *Web Design in a Nutshell* and *HTML5 Pocket Reference*, published by O'Reilly. She is a founder and organizer of the Artifact Conference, which addresses issues related to mobile web design. Jennifer has spoken at many conferences and has taught beginning web design at Johnson and Wales University in Providence, Rhode Island. When not on the clock, Jennifer enjoys making things, indie rock, cooking, travel, and raising a cool kid.

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