HTML5 Cookbook (影印版)

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Christopher Schmitt
& Kyle Simpson 著

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*Christopher Schmitt, Kyle Simpson*著

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Praise for *HTML5 Cookbook*

"Written by community experts Emily Lewis, Mark Grabanski, Christina Ramey, Kimberly Blessing, Christopher Deutsch, Anitra Pavka, Kyle Simpson, and Christopher Schmitt, the *HTML5 Cookbook* provides the breadth and depth needed to use tomorrow's technology today."

—Estelle Weyl, author of *HTML5 & CSS3 for the Real World*

"There is so much for frontend designers to remember these days, it's hard to have it all memorized. The *HTML5 Cookbook* is perfect for all of us who know what we are looking for and need a quick and reliable way to find it."

—Chris Coyier, CSS-Tricks.com

"If you're ready to learn HTML5 that works today, the *HTML5 Cookbook* is the book to buy. There are some excellent books out there if you want exposition and details, but if you want to roll up your sleeves and get to work, buy this book."

—Ben Henick, Sitebuilder at-large

"The difficulty with cookbooks has always been getting the right balance between breadth and depth. I am impressed with the *HTML5 Cookbook*. Schmitt and Simpson have got this balance just right, providing enough depth on essential topics to give you what you need for implementing HTML5 features on your sites and apps, while also going further and exploring some interesting peripheral and nascent topics that you'll want to learn about soon, if not today. Covering semantics, video, audio, Canvas, progressive enhancement and backwards compatibility, forms, accessibility, geolocation and more, you're bound to get a lot out of this book whatever web disciplines you practice.

—Chris Mills, Open Standards Evangelist, Opera Software

"The *HTML5 Cookbook* is brimming with recipes to show you what you can really do with HTML5, plus a soupçon of JavaScript. Fill your studio with the aroma of drawings, animations, geolocation, audio/video, form fields, and semantic elements."

—Helen Oliver, Research Assistant,
Design Engineering Group at Imperial College London

"Great overview of the most important HTML5 technologies, with tons of code to match it! An everyday companion for your developing needs."

—Robert Nyman, Technical Evangelist, Mozilla

"The *HTML5 Cookbook* is not only a fantastic resource for creative problem solving with HTML5, it is also a great learning tool. There's no easier way to get familiar with a new (or updated) language than by combing through useful examples—something this book is just chock full of."

—Aaron Gustafson, author of *Adaptive Web Design: Crafting Rich Experiences with Progressive Enhancement*

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Preface

We know you want to learn about all the wonderful and exciting developments that come with HTML5, like web forms, **canvas**, and local storage. But we also know the importance of establishing a good foundation for advanced development. Let's first put HTML5 into a bit of context.

What Is HTML5?

HTML5 is a specification (see *http://dev.w3.org/html5/spec/*) under development by the World Wide Web Consortium (W3C). As we write this book, the HTML5 specification is officially a *Working Draft*, which means it may go through additional revisions before becoming a recommendation. The recommendation will then go through a formal approval process, resulting in a specific version of the markup language.

Meanwhile, independent from the W3C, the Web Hypertext Application Technology Working Group (WHATWG) also pursues development of the HTML specification (see *http://whatwg.org/html*).

Notice I didn't mention a version number. That's because the WHATWG recently decided to change tack and drop versioning entirely. A "living standard" is now how WHATWG defines HTML (see *http://blog.whatwg.org/html-is-the-new-html5*). This new development model means that HTML is defined according to how it's evolving, not as a version tied to features in a "snapshot" of time.

Feature Support, Not Browser Versions

What does this mean for us designers and developers? It could lead to a greater focus on implementing individual features, rather than a full specification: no more "this is an HTML5 site," but instead "this site features web sockets and geolocation."

Then again, some in the industry argue that designers and developers *need* stable specifications to refer to in order to validate and maintain their sites effectively. Plus, having a stable "what is true now" version makes authoring and teaching more manageable.

In the end, it could all just be fodder for yet another geek debate (my money's on Batman over Spider-Man and Peter Davison as the best Doctor), but we mention it mostly as a point of clarification that we have *two* development models and a reminder of the rather interesting politics involved in the specification processes.

Five Alive

Even though WHATWG sees "HTML" as a living document that needs no version number, in this book "HTML5" is our preferred term. Why is that? For the purposes of your daily design/development life, understanding and implementing features is what's important.

Since the whole point of the *Cookbook* series is to provide you with practical recipes you can use today, let's talk support *for* HTML5. Generally speaking, all of today's latest browsers support HTML5 to some degree or another. But, like its predecessors, HTML5 doesn't have that 100% browser support that we sadly suspect we'll always be dreaming of.

Enter JavaScript

While HTML5 markup has plenty of exciting new features, as you'll see in this book, it also involves—more than ever before—a host of related web technologies, many of which rely on rich JavaScript APIs to expose themselves to your web pages.

In an effort to give you a full taste of what HTML5 and these related technologies have to offer, we will not shy away from the JavaScript details. This book will, at times, take a very heavy JavaScript perspective, as we discuss some of those advanced functionalities that various HTML5 APIs make available to us.

If JavaScript is a scary or unfamiliar topic for you, now's the perfect time to brush up on those skills—if you're serious about using HTML5, you'll almost certainly want to get comfortable with leveraging at least some of what JavaScript has to offer.

It's also important to note that many of these APIs are still evolving, even as this book is being written, edited, revised, and published. Some are more complete than others, and thus are likely to be more stable. Other APIs are still in a state of frequent fluctuation, so you should keep that in mind as you decide how you will employ HTML5 technologies in your pages.

What's in This Book

While we may not provide a full list of all the features of HTML5 and browser support for them—depending on the recipe—we do discuss the support for each of the individual elements and implementations covered throughout this book (for tips on finding out what browsers currently support what parts of the specification, see Recipe 2.3, "Understanding Browser Support for HTML5").

We also cover workarounds to implement when browser support is patchy, and why you may or may not need them. This way, you can decide for yourself if a particular feature works for you, your client, or your employer.

And that's our value to you, dear reader. Using HTML5 isn't an absolute proposition. You don't have to use embedded content or web sockets to use the new structural elements, and vice versa. You don't even have to use the new structural elements to have a valid HTML5 document; you just need the Document Type Definition.

If you find yourself asking "what's a Document Type Definition?," start your adventure into HTML5 by checking out Recipe 1.1, "Specifying the DOCTYPE"!

Pick what works for you and leave the rest. Or, rather, *experiment* with the rest to see if you may find a practical implementation for yourself or your projects.

Our industry is like HTML in a lot of ways, and probably always will be: it's constantly changing.

And we, as the good web designers and developers that we are, have to continue staying on top of those latest changes and developments. We have to continue to educate our clients and employers about the benefits and compromises. We have to experiment with moving targets and constantly grow our skills.

Honestly, though, that all sounds pretty good to us. So, let's start coding some HTML5, shall we?

Audience

While it would probably suffice to say that this book is for any person interested in learning about HTML5, it was particularly designed and developed for web developers who want to transition from XHTML or HTML4 into new technologies.

The chapters toward the end of the book are geared more for developers who want to utilize some of the JavaScript APIs found in HTML5.

Assumptions This Book Makes

You don't want a rundown of the HTML5 specification. Rather, you want to make things work as they relate to your job. In each of this book's recipes, the Solution gives you the quick and dirty answer to the problem presented. Check out the Discussion for greater coverage.

You could start from the beginning of the book and make your way through it in a linear fashion without feeling lost. With one or two exceptions, the chapters' recipes are set up so that they build off of each other. One of the great things about the books in the Cookbook series, though, is that they're here to help you out when you find yourself with a specific problem—in this case, an HTML5-related problem. Simply crack open the book or the ebook on your tablet and find the right recipe for a practical, usable solution.

And one more thing: we assume that geolocation will forever be linked to HTML5. Even though we know, yes, that W3C Geolocation API Working Draft is separate from the HTML5 specification. That hasn't stopped people from writing blog posts, tutorials, and even books about putting geolocation into the same conversation as HTML5. And since it's such a great, serviceable API right now, we felt we had to include it in a book about HTML5 (see Chapter 8). If it troubles you, think of Geolocation and other technologies as "HTML5 and friends." However, this book probably isn't for you if you require hyper-technical hierarchies to be adhered to in order to obtain practical knowledge.

Conventions Used in This Book

The following typographical conventions are used in this book:

Italic
: Indicates new terms, URLs, email addresses, filenames, and file extensions.

`Constant width`
: Used for program listings, as well as within paragraphs to refer to program elements such as variable or function names, databases, data types, environment variables, statements, and keywords.

`Constant width bold`
: Shows commands or other text that should be typed literally by the user.

`Constant width italic`
: Shows text that should be replaced with user-supplied values or by values determined by context.

This icon signifies a tip, suggestion, or general note.

This icon indicates a warning or caution.

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Acknowledgments

We can't see it, but time is an invisible dimension that surrounds us all.

Yet time is so very interesting in that it can be marked so well.

For instance, it can be marked by the due dates and deadlines of which a book of this sort is composed. So many, many deadlines.

When writing a book, for example, there is a deadline for the original manuscript.

Then there are the changes to the manuscript provided by many talented people like editors, technical editors, copyeditors, artists, designers, and so on.

They each give writers their deadlines, marking time.

Editorial deadline, technical edits deadline, copyedits deadline, art deadline, and so on.

Deadlines upon deadlines as time is.

Then there is another way time is marked.

The time away from loved ones.

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After writing several books, I now know that writing a book is a Herculean task in that it keeps time away from other activities, like fun and family—something I wouldn't wish on anyone.

But then friends aren't just anyone, right?

Along with my co-lead author, Kyle Simpson, I congratulate and thank the contributors to the *HTML5 Cookbook*: Emily Lewis, Kimberly Blessing, Christina Huggins Ramey, Anitra Pavka, Marc Grabanski, and Christopher Deustch.

Thanks to our technical editors, Shelley Powers, Ben Henick, Dusty Jewett, Molly Holzschlag, and Helen Oliver, who diligently kept us on our toes.

Our copyeditor, Rachel Head, is a miracle worker, making our respective families proud by making them think we all are better writers than we probably are.

Many, many thanks to editors Simon St. Laurent and Courtney Nash from O'Reilly, who helped me stay sane during our time on this book.

Every once in a while I tried to count up how many total years of web development experience were brought to this project by all the talented writers and editors who contributed, but I got a bit too exhausted just thinking about it.

I'm not sure if all these talented, beautiful people knew what they signed up for when I first talked to them about the *HTML5 Cookbook*, but I'm happy with what we were able to make together. And I thank them for that.

Finally, thanks to my family and loved ones who have been there for me throughout my obsession with web design and development. Let's continue to share good times together.

Christopher Schmitt

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Kyle Simpson

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Thank you to Christopher Schmitt for giving me the opportunity to contribute to this book. I'd also like to thank Rey Bango, who recommended me to Christopher and who has given me so many opportunities to write about what I love. Following the pimpage chain, I must thank Christian Heillman for recommending me to Rey in the first place and for always encouraging me to share what I know.

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To the readers of my blog, my social-network friends, and everyone I've met at conferences, thanks for being interested in what I have to share and for sharing back. You remind me every day why I love what I do.

Emily Lewis

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Kimberly Blessing

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Thank you, Mom and Dad, for... well, everything.

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Anitra Pavka

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Table of Contents

Preface ix

1. Fundamental Syntax and Semantics 1
1.1 Specifying the DOCTYPE 1
1.2 Specifying the Character Set 2
1.3 Specifying the Language 4
1.4 Optimizing <script>s and <link>s 4
1.5 Adding Document Structure with HTML5's New Elements 5
1.6 Choosing Between <article> and <section> 9
1.7 Checking Your Document Outline 11
1.8 Modifying the Document Outline 14
1.9 Emphasizing Text 14
1.10 Adding Importance to Text 16
1.11 Highlighting Text for Reference 17
1.12 Marking Up Small Print 18
1.13 Defining Acronyms and Abbreviations 19
1.14 Adding Links to Block-Level Content 20
1.15 Marking Up Figures and Captions 20
1.16 Marking Up Dates and Times 21
1.17 Setting the Stage for Native Expanding and Collapsing 23
1.18 Controlling the Numbering of Your Lists 25
1.19 Hiding Content to Show Later 27
1.20 Making Portions of a Page Editable 28
1.21 Setting the Stage for Native Drag-and-Drop 29

2. Progressive Markup and Techniques 31
2.1 Adding More Semantic Meaning 31
2.2 Picking a Markup Style 33
2.3 Understanding Browser Support for HTML5 34
2.4 Making Internet Explorer Recognize HTML5 Elements 35
2.5 Detecting HTML5 Features with JavaScript 38

2.6 Using HTML5 Boilerplate 44
2.7 Validating HTML5 48
2.8 Mapping HTML5 Elements to ID and Class Names 51

3. Forms 55
3.1 Displaying a Search Input Field 55
3.2 Contact Information Input Fields 58
3.3 Utilizing Date and Time Input Fields 62
3.4 Number Inputs 66
3.5 Selecting from a Range of Numbers 69
3.6 Selecting Colors 71
3.7 Creating an Editable Drop-Down 73
3.8 Requiring a Form Field 77
3.9 Autofocusing a Form Field 80
3.10 Displaying Placeholder Text 80
3.11 Disabling Autocomplete 82
3.12 Restricting Values 84
3.13 Making HTML5 Work in Older Browsers 86
3.14 Validating Form Data in Older Browsers with JavaScript 90
3.15 Example: Sample Form 92

4. Native Audio 95
4.1 Adding HTML5 Audio 95
4.2 Manipulating the Audio Stream 100
4.3 Generating <audio> Using JavaScript 102
4.4 Visualizing <audio> Using <canvas> 103
4.5 Sample Design: Custom Audio Player 107

5. Native Video 113
5.1 Adding HTML5 Video 113
5.2 Ensuring Multi-Browser Video Support 117
5.3 Setting Video Dimensions 119
5.4 Displaying a Placeholder Image Before Video Plays 120
5.5 Making Video Loop 122
5.6 Sample Design: Manipulating Video with <canvas> 122

6. Microdata and Custom Data 127
6.1 Adding Microdata to Markup 128
6.2 Using Microdata and Schema.org 129
6.3 Adding Custom Data to Markup 131
6.4 Accessing Custom Data with JavaScript 133
6.5 Manipulating Custom Data 134
6.6 Example: Creating a Map Application Using Custom Data 136

7. Accessibility 139
7.1 Writing Appropriate alt Text Descriptions 141
7.2 Identifying Abbreviations and Acronyms 144
7.3 Identifying Sections of a Page Using ARIA Landmark Roles 146
7.4 Creating More Accessible Navigation Links 149
7.5 Associating Form Fields with Their Labels 151
7.6 Grouping Form Fields Logically 152
7.7 Enabling a fieldset Dynamically 154
7.8 Identifying Required Form Fields 155
7.9 Using ARIA Live Regions to Announce When Dynamic Content Is Updating 157

8. Geolocation 161
8.1 Getting Basic Geolocation Data 161
8.2 Getting Basic Geolocation Data with a Fallback 164
8.3 Reverse Geocoding an Address with Latitude and Longitude 167
8.4 Converting an Address into Latitude and Longitude 169
8.5 Getting Directions from the Current Location 172
8.6 Example: Starbucks to Starbucks 178

9. <canvas> 183
9.1 Drawing on a <canvas> 184
9.2 Using Transparency 189
9.3 Setting <canvas> Dimensions 193
9.4 Using Gradients, Patterns, and Line Styles 194
9.5 Pulling External Images into a <canvas> Drawing 198
9.6 Setting Color Transformations 201
9.7 Working with Geometric Transformations 202
9.8 Placing Text on a <canvas> 206
9.9 Clipping <canvas> Drawings 208
9.10 Animating <canvas> Drawings 210
9.11 Drawing Graphs with <canvas> 213
9.12 Saving a <canvas> Drawing to a File 215

10. Advanced HTML5 JavaScript 217
10.1 Local Storage 218
10.2 Application Caching 221
10.3 Drag and Drop 225
10.4 Web Workers 230
10.5 Web Sockets 234
10.6 History 238
10.7 Local Files 242

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