
Table of Contents

Preface	ix
1. How Did We Get Here?	1
Diving In	1
MIME Types	1
A Long Digression into How Standards Are Made	2
An Unbroken Line	7
A Timeline of HTML Development from 1997 to 2004	9
Everything You Know About XHTML Is Wrong	10
A Competing Vision	11
What Working Group?	12
Back to the W3C	13
Postscript	14
Further Reading	14
2. Detecting HTML5 Features	15
Diving In	15
Detection Techniques	15
Modernizr: An HTML5 Detection Library	16
Canvas	16
Canvas Text	17
Video	18
Video Formats	19
Local Storage	21
Web Workers	23
Offline Web Applications	23
Geolocation	24
Input Types	25
Placeholder Text	27
Form Autofocus	27
Microdata	28

Further Reading	29
3. What Does It All Mean?	31
Diving In	31
The Doctype	31
The Root Element	33
The <head> Element	34
Character Encoding	35
Friends and (Link) Relations	36
New Semantic Elements in HTML5	41
A Long Digression into How Browsers Handle Unknown Elements	42
Headers	45
Articles	47
Dates and Times	49
Navigation	51
Footers	52
Further Reading	55
4. Let's Call It a Draw(ing Surface)	57
Diving In	57
Simple Shapes	58
Canvas Coordinates	60
Paths	61
Text	63
Gradients	67
Images	70
What About IE?	73
A Complete Example	75
Further Reading	79
5. Video on the Web	81
Diving In	81
Video Containers	81
Video Codecs	83
H.264	84
Theora	84
VP8	85
Audio Codecs	85
MPEG-1 Audio Layer 3	86
Advanced Audio Coding	87
Vorbis	87
What Works on the Web	88
Licensing Issues with H.264 Video	90

Encoding Ogg Video with Firefogg	91
Batch Encoding Ogg Video with ffmpeg2theora	98
Encoding H.264 Video with HandBrake	100
Batch Encoding H.264 Video with HandBrake	107
Encoding WebM Video with ffmpeg	108
At Last, the Markup	110
MIME Types Rear Their Ugly Head	113
What About IE?	114
A Complete Example	114
Further Reading	115
6. You Are Here (And So Is Everybody Else)	117
Diving In	117
The Geolocation API	117
Show Me the Code	118
Handling Errors	120
Choices! I Demand Choices!	121
What About IE?	123
geo.js to the Rescue	123
A Complete Example	125
Further Reading	126
7. The Past, Present, and Future of Local Storage for Web Applications	127
Diving In	127
A Brief History of Local Storage Hacks Before HTML5	128
Introducing HTML5 Storage	129
Using HTML5 Storage	130
Tracking Changes to the HTML5 Storage Area	131
Limitations in Current Browsers	132
HTML5 Storage in Action	132
Beyond Named Key/Value Pairs: Competing Visions	134
Further Reading	135
8. Let's Take This Offline	137
Diving In	137
The Cache Manifest	138
Network Sections	139
Fallback Sections	140
The Flow of Events	141
The Fine Art of Debugging, a.k.a. "Kill Me! Kill Me Now!"	142
Let's Build One!	145
Further Reading	146

9. A Form of Madness	147
Diving In	147
Placeholder Text	147
Autofocus Fields	148
Email Addresses	150
Web Addresses	151
Numbers As Spinboxes	153
Numbers As Sliders	155
Date Pickers	156
Search Boxes	158
Color Pickers	160
And One More Thing...	160
Further Reading	161
 10. “Distributed,” “Extensibility,” and Other Fancy Words	 163
Diving In	163
What Is Microdata?	164
The Microdata Data Model	165
Marking Up People	168
Introducing Google Rich Snippets	174
Marking Up Organizations	176
Marking Up Events	180
The Return of Google Rich Snippets	184
Marking Up Reviews	186
Further Reading	190
 Appendix: The All-in-One Almost-Alphabetical Guide to Detecting Everything	 191
 Index	 201